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DEERING J. ROBERTS, M.D.,

LATE PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE.

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LIST OF CONTRIBUTORS TO VOLUME XIX.

THOS. A. ATCHISON, M.D.....Tennessee.

J. H. ATLEE, M.D.....Tennessee.

JOHN R. BUIST, M.D.....Tennessee.

W. F. CLARY, M.D.....Tennessee.

RICHARD DOUGLAS, M.D.....Tennessee.

C. C. FITE, M.D.....New York.

HENRY D. FRY, M.D.....D. C.

W. F. GLENN, M.D.....Tennessee.

M. GOLTMAN, M.D.....Tennessee.

W. D. HAGGARD, M.D.....Tennessee.

W. G. HAGGARD, JR., M.D.....Tennessee.

HOWARD A. KELLY, M.D.....Maryland.

WM. KRAUSS, M.D.....Tennessee.

T. E. MITCHELL, M.D.....Georgia.

MOORE MOORE.....Tennessee.

JOHN B. MURPHY, M.D.....Illinois.

I. A. MCSWAIN, M.D.....Tennessee.

CHAS. P. NOBLE, M.D.....Pennsylvania

T. I. PEGRAM, M.D.....Tennessee.

A. B. RAMSEY, M.D.....Tennessee.

F. B. REAGOR, M.D.....Tennsssee.

DEERING J. ROBERTS, M.D.....Tennessee.

NICHOLAS SENN, M.D.....Illinois.

B. W. STONE, M.D.....Tennessee.

A. M. TRAWICK, M.D.....Tennessee.

T. HILLARD WOOD, M.D.....Tennessee.

CHAS. C. YARBROUGH, M.D.....Tennessee.

W. B. YOUNG, M.D.....Tennessee.

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Society Reports.

ABDOMINAL HYSTERECTOMY FOR FIBROMA UTERI.

BY

HOWARD A. KELLY, M.D.,
Professor of Obstetrics and Gynecology in the Johns Hopkins University, Baltimore.

CHAS. P. NOBLE, M.D.,
Surgeon-in-Chief, Kensington Hospital for Women, Philadelphia.

HENRY D. FRY, M.D.,
Professor of Obstetrics in the Georgetown University, Washington, D.C.

AND

WILLIAM D. HAGGARD, JR., M.D.,
Associate Professor of Gynecology in the University of Tennessee, Nashville.

At the regular meeting of the *Nashville Academy of Medicine*, held in its hall, Thursday evening, Nov. 12th ult., quite a large number of members being present, as well as some of the fellows of the Southern Surgical and Gynecological Association, which had adjourned its regular annual meeting in this city *sine die*

that morning, Dr. A. M. Trawick in the chair, stated that as the regular essayist was absent from the city, he would call on Dr. Kelly, of Baltimore, to make a few remarks on the subject of Uterine Fibroids, as he had understood that the gentleman had occupied the clinic hour at the City Hospital on the Tuesday previous, by courtesy of W. D. Haggard, M.D., Professor of Gynecology in the University of Tennessee, and had performed a very brilliant operation, removing a fibroid uterus by abdominal section. After the gentleman would conclude his remarks, the subject would be before the Academy for discussion, in which the visiting fellows of the Southern Surgical and Gynecological Association were most cordially invited to participate, as well as members of the Academy. This suggestion of the President met with universal approval, and

Dr. Howard A. Kelly, of Baltimore, after thanking the gentleman for their courtesy, spoke of the important educational function of medical societies in general, and of the earnest, dignified and intelligent discussions which characterized the recently concluded meeting of the Southern Surgical and Gynecological Association. Such discussions by diffusing information and eqalizing practice mean more to suffering patients than the simple announcement of some great discovery, purely scientific. They tend to the cultivation of moral integrity and goodness in the practice of medicine. There is no real success except for men who are earnest and whose work makes for righteousness.

I will speak to you to-night, said Dr. Kelly, of abdominal hysterectomy for fibroma, one of the most important and interesting topics to every gynecologist. The case at the City Hospital, tendered me through the courtesy of Dr. Haggard, will form the text of my remarks. I there made an enucleation in a little over seven minutes by a new and simplified technique.

When I began surgery, in 1883, a fibroid tumor of the uterus was a *noli me tangere*.

Surgeons opened the abdomen, and, finding a fibroid, at once decided that the case was inoperable; when it was mistaken for an ovarian growth and removed, the mortality was so frightful as to deter others from taking such risks.

The first important step was taken by Hegar, of Germany, when he removed both ovaries and tubes in fibroids, finding, in

many instances, that the growth shrivelled from the lessened nutrition. This castration was widely practiced; often with distinct advantages. At first this operation was adopted with enthusiasm, but it now occupies a very restricted field in gynecology.

When Schroeder, in Germany, first performed hysterectomies for fibroids, he did as Spencer Wells had done in ovariotomy, strove for an ideal method, and dropped the stump into the abdomen. The large mortality which followed this plan was due we now know to deficiencies in the aseptic technique.

Another class of operators, with Koeberlè, began a plan of treatment, by clamping the stump of the exsected fibroid uterus externally in the abdominal incision by the serre-nœud, where it became mummified in the lower angle and sloughed away, leaving a granulating pit in the lower abdomen.

Schroeder attributed his mortality to two causes, the shrinkage of the stump allowing hemorrhage. and infection from the cervical canal extending into the abdominal cavity. In the extra-peritoneal clamp method of dealing with the stump, these two dangers were avoided, and this plan of operation prevailed for a while. Dr. Joseph Price, of Philadelphia, was its most earnest and successful champion in this country, and succeeded in engrafting his views largely in the South and West.

The next step was taken by Prof. Fritsch, of Bonn, and myself, independently, April, 1889.* To avoid sepsis the stump was sewed together and then stitched or suspended to the peritoneum in the lower angle of the abdominal wound; at the same time the sutures used in sewing its lips together were left long and held by a pair of forceps lying across the wound so that the stump could be instantly everted and inspected in case of hemorrhage. The smooth convalescense of patients so treated showed that neither hemorrhage nor sepsis from the stump were in reality such great dangers as the profession at that time believed them to be.

The disposal of the dread of hemorrhage and sepsis in this manner, prepared the way for the next important step in the evolu-

---

*Vid. American Journal of Obstetrics, April, 1889, page 375, volume 22; also Centralblatt f. Gynecology, Nov. 1, 1889.

tion of the subject. Now, under the improved technique, Dr. Eastman, Dr. Krug, and Prof. Chrobak began dropping the stump, and then covering it completely with the anterior layer of peritoneum.

In 1895 I originated a plan of treating myomatous uteri, which I shall now describe. Dr. Pryor, of New York, had published prior to my first publication, an account of a similar plan of treating intra-ligamentary tumors.

By my plan of operating, from half an hour to an hour is saved the patient in the enucleation stage, the most important period of the operation, for with the completion of the ablation of the tumors the question as to the possibility of operating is answered, and all important complications have been met; the steps following the enucleation are more or less routine in character. An abdominal incision is made and the ovarian vessels tied on one side; then the round ligament is tied on the same side and the top of the broad ligament opened and the incision carried across, separating vesical peritoneum from uterus; the bladder is pushed well down with a sponge; next, having in this way exposed it, tie the uterine artery near the point where it leaves the uterus in the pelvic cellular tissue. Now cut boldly across cervix with the spud while pulling the uterus upward and outward. This develops a cellular interspace in the opposite broad ligament as soon as the cervix is completely divided, in which there is no bleeding and the uterine artery can be distinctly seen and clamped. Now pulling the uterus still further up and rolling it over, a clamp is applied to the round ligament and then to the ovarian vessels, when the fibroid uterus is cut away entirely. There is no haste throughout, but an orderly progression of steps, and yet Dr. Haggard tells me this uterus with its sixteen tumors was removed in four and a half minutes. I have done it at home in three minutes. The rest of the operation consists in applying ligatures in place of the clamps to the ovarian vessels, to the round ligament, and to the uterine artery of both sides. The cervical stump is now closed, and the bladder, peritoneum and anterior layer of the broad ligament are sewn to the posterior layer, when the female plevis is converted into the male form.

There is an occasional interruption in convalescence. If

there is hemorrhage into the cellular tissue, causing hematoma or pus, divulse the cervix and let it out. If there is extensive hemorrhage into the cellular tissue, a small drain should be p aced in the cervix.

Fibroid uteri should be treated in this way only when they produce symptoms serious enough to justify hysterectomy. If there is but moderate discomfort at the menstrual period, don't remove the organs. But, if there is constant hemorrhage, pain, severe pressure symptoms, a choked pelvis causing pressure on

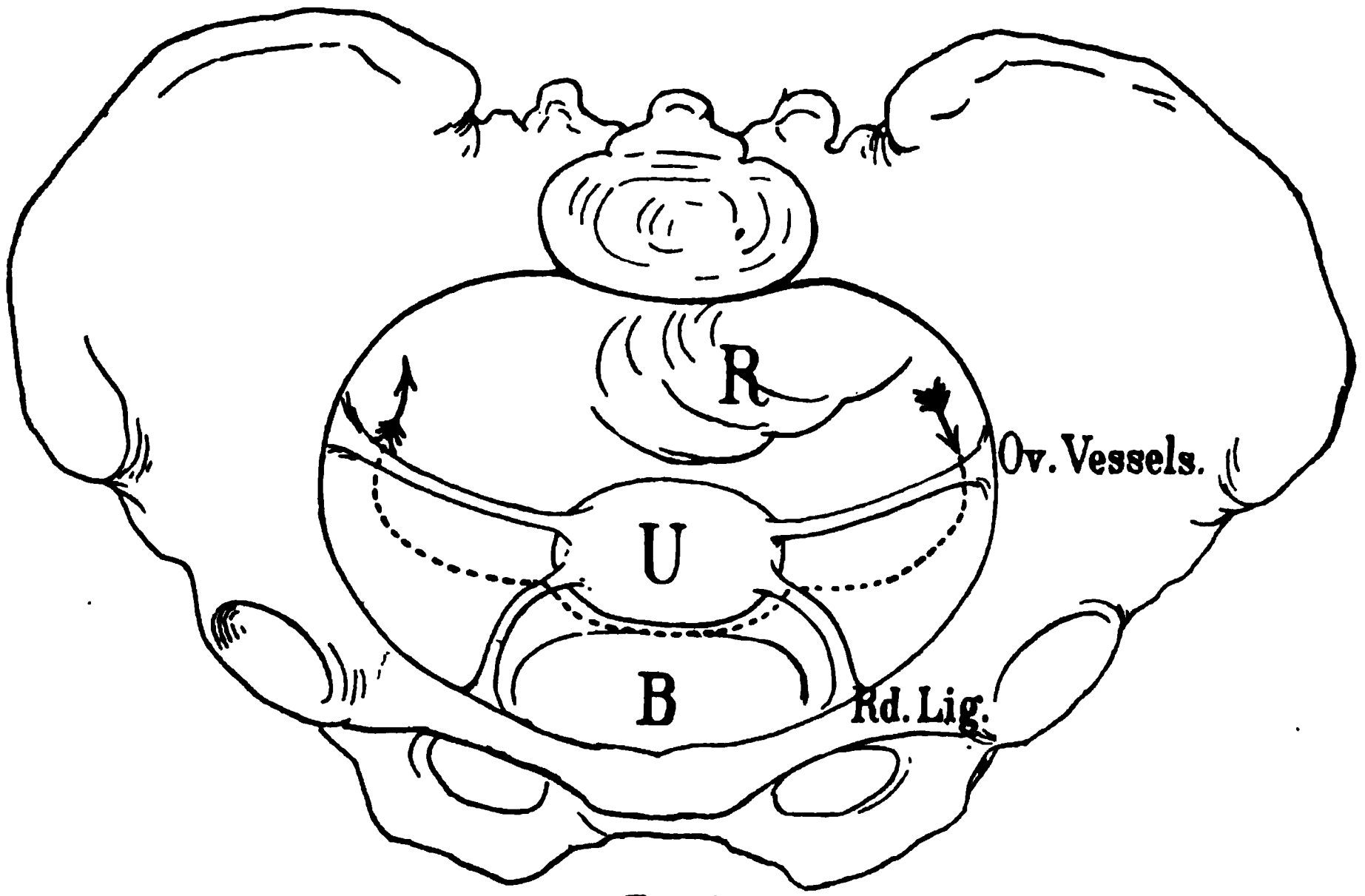


FIG. 1.

Showing line of incision through peritoneum from left to right, through left broad ligament, round ligament, utero-vesical peritoneum, right round ligament, and ending with right broad ligfiment near the pelvic brim.

the ureters, or changing the functional activity of bowel and bladder, operate at once.

When asked why he left the ovaries, Dr. Kelley replied that it was experimental, with the hope of avoiding the unpleasant sequelæ from the sudden induction of the menopause. In all recent cases he had been leaving one or both ovaries, if not displaced or diseased, and had some very satisfactory results in

changing entirely the character of the convalescence and the sequelæ. It is, however, too early to speak with assurance.

The next step in the line of progress will be the removal of large intestitial myomata or multiple myomata without sacrificing the uterus or any part of it. Dr. Kelly cited cases in which he had removed seven, eight and nine tumors in this way, and demonstrated with the specimen before him the removal of sixteen myomata without opening the uterine cavity, which he said could just as easily be removed from the uterus while in situ as he had done on the specimen.

Dr. Charles P. Noble, of Philadelphia, on being called on, said:—My own experience with hysterectomy began after the pioneer work of Keith and Bantock in England, and of Schroeder in Germany, had opened this field to the abdominal surgeon. My first three hysterectomies for fibroid tumors were performed after the method of Bantock, using the *serre-nœud*. These three patients recovered, but the various disadvantages about the method were such as to cause me to abandon it. The chief objections to the method are: 1. It entails sloughing of the stump above the constricting wire. From this point of necrosis, infection of the patient may take place. 2. It entails a long convalescence, as until the stump separates and the resulting wound granulates, the patient must remain in bed—from six to ten weeks being the usual time. 3. A large percentage of patients operated upon with the "*nœud*" suffer from subsequent ventral hernia. The three patients operated upon by myself by this method, each had a hernia, which required a subsequent operation. 4. It is inapplicable to certain tumors, either because of a short stump or short vagina, which makes it difficult or impossible to bring the stump up into the wound; or because of the nature of the tumor, more especially cervical fibroids, which render this technique difficult or impossible.

As the best results of those using the "*nœud*" have been improved upon by other methods which do not have the disadvantages detailed, in my opinion this method of hysterectomy has become obsolete, and the only further function of the *serre-nœud* is to serve as an object of historical interest in medical museums.

Dr. Kelly has referred to Schroeder's work and outlined the

bearing which it has had upon the subsequent development of hysterectomy. Schroeder was the pioneer in dropping the stump in hysterectomy, and deserves full credit for the impetus which he gave the operation. There are two reasons why his mortality

FIG. 2.

Left ovarian vessels tied, left round ligament tied, vesical peritoneum divided and pushed do and left uterine vessels ligated. Cervix amputated and uterus pulled up and out, exposing ri uterine artery, which is clamped an inch above the cervical stump. The two following steps clamping the right round ligament and right ovarian vessels, when the mass is removed.

was high; 1. He operated in pre-antiseptic days, and many of the patients were infected as a consequence of faulty technique. 2. He failed to recognize that hemorrhage could be controlled simply and safely by the ligation of the two ovarian and the two uterine arteries. In his work he depended upon a multiplicity

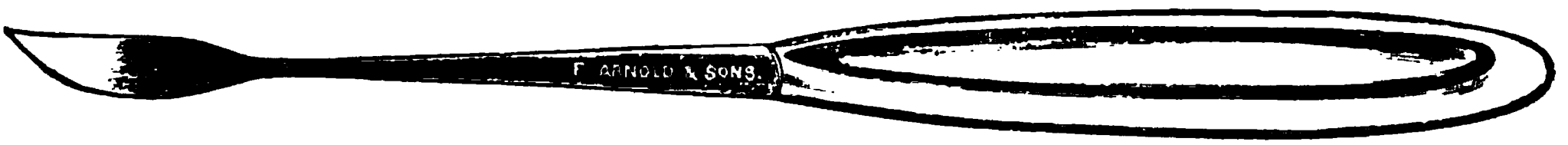
ures placed in the cervix itself, rather than upon ligation runks of the uterine arteries. No doubt in many cases teries were ligated, but this was by accident, and not by as a consequence, a certain number of his patients died morrhage.

Kelly has traced the development of hysterectomy in his rk. It seems to me that the two essentials in the devel- of the modern operation of hysterectomy are the perfec- the aseptic technique, and the recognition of the ease and y with which hemorrhage can be controlled by ligating ks of the ovarian and uterine arteries. All our present ults rest upon this basis.

n I began dropping the stump in hysterectomy, for a laced no ligatures whatever in the cervical tissue, and as this is unnecessary to secure hæmostasis, if the uterine are well ligated low down on the cervix. In none of the s treated was there secondary hemorrhage. More recently re against possible infection from the vagina, I have up the stump with a few catgut sutures before suturing of bladder peritoneum over it.

Kelly has described the excellent method of hysterectomy e follows. There is no doubt that by this method the n be quickly removed, and that in the hands of an expert, Dr. Kelly, it gives beautiful results. In certain cases of notably in those intra-ligamentous in development, and omplicated by dense adhesions of one uterine appendage, thod offers great advantages over any other; but for rou- k I prefer to ligate and cut down the broad ligament e side, then upon the other side, and to amputate the stump after the blood vessels have been secured. An enced operator, in following the method of Dr. Kelly, sily lose his wits from the occurrence of hemorrhage after through the stump of the cervix, and in, more or less, pplying hæmostatic forceps to arrest bleeding, enclose er in the grasp of the forceps. This accident has hap- nd resulted in the wounding of the ureter upon one side. he hands of an expert no operation is more simple and ory than the modern hysterectomy for fibroid. There are ints, however, which might be dwelt upon with advantage.

The ligature silk should be as fine as possible. The first ligature should embrace the ovarian artery upon one side. The second ligature, of very fine silk, should embrace the round ligament and the small artery and vein which accompany it. A forceps applied alongside the uterus guards against reflux hemorrhage, and permits the upper portion of the broad ligament down to, and including the round ligament, to be cut through. The peritoneum in front of the uterus and tumor should then be incised from one round ligament to the other, and the bladder stripped off from the cervix. It will now be found that very moderate pressure upon the open broad ligament with a sponge will push the loose connective tissue away from the uterus down to, or below the level of the internal os, and will expose the uterine artery and vein which run up along the side of the uterus. This should now be securely ligated and cut. The same process should



HYSTERECTOMY SPUD. Used instead of a knife for amputating the uterus at the cervix. The curved blade enables the operator to work easily in a deep pelvis cupping out the stump.

be repeated upon the opposite side. A very important point is to be certain that the ovarian vessels are well secured by their ligatures, and also that the uterine arteries are picked up with forceps, and a separate ligature of fine silk be placed upon them, in addition to the original mass ligature. By observing these points, troublesome hemorrhage will be avoided at the time of operation, and secondary hemorrhage be reduced to a minimum. So far, in my experience, I have never seen a secondary hemorrhage after hysterectomy.

Another method of hysterectomy is to remove the entire uterus. This method has several disadvantages over the one described. It takes longer to do it, because the cervix must be cut out, and the bleeding resulting from cutting through the vagina requires a certain amount of time for its arrest. Another objection, and the more important one, is that the cavity of the vagina is opened and brought in communication with that of the peritoneum. This greatly increases the risk of septic peritonitis. Careful studies of the endometrium in uteri removed by hyster-

ectomy have shown that the endometrium at the level of the intérnal os is almost, if not constantly, sterile; while it is well known that the vagina constantly swarms with germs. Careful preparation of the vagina before operation, of course, reduces the risk of infection, but does not remove it. As bearing upon the relative advantages of the two methods, it is worth recalling that most of the American gynecologists who have been the advocates of pan-hysterectomy have abandoned abdominal for vaginal hysterectomy whenever the size of the tumor permits. This indicates that their experience was for some reason unsatisfactory, as the same is not true of those who have made the supra-vaginal amputation.

The French school of surgeons have applied the method of vaginal hysterectomy to the removal of small fibroids, including in this classification all those which do not extend above the umbilicus. The results which they have obtained have been good, but the method seems crude to one who is a master of the niceties of abdominal hysterectomy. During the past summer I had the pleasure of witnessing a hysterectomy by Sègond, of Paris, and am sure that none of its advocates can perform the operation more skilfully than it was done in this case. The two methods may be contrasted as follows:

When an abdominal hysterectomy is completed in an aseptic case, the parts are left in condition for immediate healing. Twelve or twenty-four hours suffice to cover over any peritoneal wounds, and the patient proceeds at once with her convalescence. With the modern method of closing the abdominal wound, by buried and intra-cuticular sutures, the entire operative process is complete at the conclusion of the operation, and the patient is not further disturbed even for the removal of sutures. In the vaginal operation, hemorrhage is guarded against by the use of heavy clamps, which ensures the sloughing of all tissues included in the bite of the forceps. The forceps themselves must remain on for twenty-four hours or longer, giving considerable annoyance to the patient by their presence. As the peritoneal cavity is left in open communication with the vagina at the end of the operation, it is necessary to pack the wound with gauze to invite a localized peritonitis, so as to guard the peritoneal cavity from infection from the inevitable sloughing of the stumps. This

process involves, at the best, a foul-smelling septic discharge, which, if it does not infect the particular patient, is a source of possible contamination of others operated upon later, as the hands of the operator may become infected in the subsequent dressing of the patient. At the best, the convalescence of the patient is postponed until localized peritonitis has shut off the field of operation and until the sloughing process is complete. The contrast in the two classes of cases is so great that I find it difficult to understand how the vaginal operation can appeal to one whose aim is the highest development of surgery.

There remains the question of the relative frequency with which the operation for fibroids should be done. My work in the past has been in very close agreement with the principles laid down by Dr. Kelly, but the more I see of fibroid tumors the more I am inclined to broaden the field of operative treatment. This tendency is due to my experience in dealing with degenerated fibroids, and because I have been obliged to operate a large number of times in women of advanced age because of complications due to the degeneration of fibroids, or on account of secondary diseases arising from their presence. The old theory that the menopause is curative of fibroids of the uterus is very far from correct. It has no influence whatever upon soft fibroids, and but little influence upon many of the hard variety. Its influence is most marked in multinodular fibroids of small size. As I have been obliged to operate numerous times in women of advanced age because of necrotic, calcareous, or myxomatous degeneration, and in a smaller number of cases in younger women on account of sarcomatous degeneration, I am led to question the advisability of permitting fibroids to run their natural course, even though producing minor symptoms when they come under observation. The question may well be asked, what does it profit a woman to retain a fibroid tumor in her economy? Not to go into this question too much at length, I will say that while I would not maintain the position that every fibroid should be removed so soon as a diagnosis is made, I believe the next advance in dealing with this subject will be the more general advocacy of operation early in the course of the disease, with the definite object of conserving the sexual organs. Operations done early, when the patient is in good condition, will permit of the

more frequent adoption of myomectomy, which will cure the patient, and at the same time leave the sexual organs intact. This, I repeat, will be the next advance in the field of gynecology.

Dr. Henry D. Fry, of Washington City, on being called on, responded as follows:

The subject had been so ably and exhaustively treated by the speakers who have preceded me that very little remains to be said concerning the technique of the operation for the removal of fibroma uteri.

Personally I have had no experience with the method of freeing and cutting away one side first, and then amputating the uterus, and, finally, cutting away the remaining broad ligament. I entered the field about the time when the extra-peritoneal treatment of the stump was being abandoned. Excluding the comparatively small number of cases in which complete hysterectomy was indicated, I have followed the plan of cutting both broad ligaments and amputating the uterus at the internal os.

To introduce another phase of the subject I would ask, what is to be done with the mass of women who have fibroids and apply for relief? Are they all to be subjected to the radical operation? Few of them may be able to obtain the skill of the masters of the profession, and must they submit to the increased risks of an operation at less skilled hands? It is true that certain dangers are run by the presence of fibroids after the menopause; they may undergo malignant degeneration; they may become cystic; they may continue to grow; but will they kill as many as the knife if promiscuously used?

It is a far more common experience that they become quiescent or diminish after the climacteric.

I do not wish it understood that I deprecate hysterectomy for fibroids. I only desire to emphasize the point, that we must select cases for operation, and not look upon every woman having a tumor as a necessary candidate for our surgical enthusiasm.

Now, the principal symptoms which bring these cases to us are hemorrhage and pressure effects. A certain proportion can be relieved by paliative treatment, while in a large number of those suffering from metrorrhagia complete relief is obtained by removal of the tubes and ovaries in selected cases. In my experience, this method has given perfect satisfaction. It is certainly

less dangerous than the radical operation, except in skilled hands.

I wish to say a word in regard to the method mentioned to-night of leaving one ovary, or both, when performing hysterectomy; and that word is a protest.

Formerly it was advised *to take out the ovaries and leave the tumor*, now it is proposed *to take out the tumor and leave the ovaries*. The only argument advanced in support is, to prevent the artificial production of the menopause and consequent reflex phenomena. Now, these phenomena are the same in kind and quantity as accompany the natural change of life, and if the woman survives the operation she will go through with them at that time. She does not escape, therefore, why not do a complete operation and let her have it all over? Removal of the uterus removes the physiological importance of the ovaries. There are objections, on the other hand, to the practice of leaving one or both. Degenerative changes may take place, ovarian tumors may develop. The woman may have an abdominal pregnancy. Some women will have a baby even after the uterus is removed, as in the case reported by Kœberle, where the spermatozoids passed through a fistulous tract left after vaginal hysterectomy.

For these reasons, that further complications may ensue by leaving an ovary, I do not endorse the suggestions unless some good ground could be advanced to support it.

Dr. J. T. Wilson, of Sherman, and Dr. Saunders, of Fort Worth, Texas, on being requested by the Chair to favor the Academy with their views, spoke briefly, commending the remarks that had been made as exceedingly interesting and instructive, forming a most agreeable addition to their enjoyment of the annual meeting of the Association of which they were members, in the city of Nashville.

Dr. William D. Haggard, Jr., of Nashville, was the next speaker. He said:—I have been very much impressed with the method of hysterectomy devised and employed by Dr. Kelly. The case which he has referred to, and in which I had the pleasure of assisting him, I regard as one of the most masterful pieces of surgery it has ever been my privilege to witness. All my later training has been in total hysterectomy, and the cases I have

done have all been by that method. I admire the beauty and perfection of the technique described to us to-night, but I must object to the strictures placed upon total hysterectomy by Dr. Noble. In seventy-three abdominal hysterectomies occurring in the Woman's Hospital last year, I am positive quite seventy of them were total.

It has been alleged that it takes longer. "Cutting the cervix out" is not a separate step, but only requires stripping the peritoneum down a trifle further than when amputating at the internal os. Ligating the uterine arteries is required in both, after which amputation is made at the vaginal vault rather than above it. The cut end of the vagina rarely requires ligature. When the tumor is removed, hemostasis is complete, and there are no vessels, stump, or peritoneal flaps requiring ligature or suture, and the operation is concluded. What is gained in the rapidity of enucleation by the other method is equalized by the stages of ligaturing and suturing. Hence a contrast of time from the beginning to the completion of both will not show a gain where supra-vaginal amputation is made.

The danger of opening into the vagina seems more theoretical than real. Careful preparation of the vagina, although it constantly swarms with germs, appears to be effectual in curettage, where the uterine mucosa is denuded and lymph channels left open; suppuration is rare in extensive plastic operations on the vagina itself; infection is almost unknown in explorative vaginal section, where the vagina and peritoneum are in continuous and practically unobstructed communication; and the advocates of vaginal ovariotomy and hysterectomy *per vaginam* base their very low mortality on the immunity from sepsis by this method. Moreover, germs in the vagina were evidently not the determining factor that induced certain American gynecologists to abandon total abdominal hysterectomy for total hysterectomy *per vaginum*, as now they deliberately choose the vagina as their avenue of approach. I regard Krug as the chief exponent of pan-hysterectomy in this country, and I believe his allegiance to the abdominal route is still unshaken.

Personally, I am not prepared to champion the vaginal method in fibroma with the same assurance that I have favored that route in septic pelvic conditions. With this element elimi-

nated I believe pelvic surgery is easiest done through the abdomen, in Trendelenburg's posture. This is typically true of fibroid disease, and if total hysterectomy is contemplated, the technique of Krug is very satisfactory.

The use of strong silk-loops, fixed in opposite sides of the abdominal incision, and at its lower angle, are superior to instrumental retractors. Silk is likewise employed as a temporary hemostatic to the uterine end of the tube, while the other portion of the double ligature is pulled out near to the infundibulo-pelvic ligament and made to secure the ovarian artery. The opposite side is treated similarly. Section of both broad ligaments is made with scissors close to the uterus until the vicinity of the uterine artery is reached. The lower extremities of these incisions are connected by an incision through the peritoneum covering the anterior face of the uterus. The peritoneum is pushed down until the vagina is reached and opened with scissors. A finger introduced through the opening impinges on the posterior vaginal fornix which is opened behind on the finger directly. The uterus is then moored only by the lower segments of the broad ligaments containing the uterine arteries. A double transfixion ligature is applied to this portion. The upper half tied and the superior end of the other ligature passed under the unsevered ligament containing the uterine artery and tied. It is then cut near the cervix and the corresponding side secured in like-manner, and when severed completes both enucleation and hemostasis with safety and celerity. The vagina is then filled with iodoform gauze, and when the patient is lowered into the horizontal position the peritoneum falls into neat approximation over the cut end of the vagina. The results are entirely satisfactory.

Perfected technique in any method is the sesame to success.

[The cuts illustrating this article were kindly furnished by our most excellent contemporary, *The Johns Hopkins Bulletin*.]

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INTESTINAL OBSTRUCTION FOLLOWING ABDOMINAL HYSTERECTOMY; OPERATION; RECOVERY.*

BY WILLIAM D. HAGGARD, JR., M. D.,

Associate Professor of Gynecology in the University of Tennessee.

The patient, operated upon by Professor Kelly,† did well until the ninth day. Highest temperature, 100° F. On the evening of the ninth day she had an attack of colic immediately after supper, inaugurated by vomiting a semi-solid material. The pulse rose from 72 to 100.

She was given mercurials and aromatic spirits of ammonia by the resident physician, followed by salines in the morning. Constipation being unrelieved and pain continuing, she was given more salines and a high enema, which moved the lower bowel only.

Pulse being high, an explanation of her symptoms was sought in the abdominal incision and the cervical stump. The former had healed throughout by early and clean union; the latter was perfectly free from induration and tenderness.

On the eleventh day pain continued unabated, with vomiting; pulse remained high, and obstipation was complete in spite of all attempts to overcome it. By night her pulse was 140, distention marked, and the diagnosis of intestinal obstruction was apparent. I favored immediate operation, but my consultants insisted on waiting until morning, meanwhile giving a large dose of castor-oil and a high saline enema. Both were ineffectual.

The next morning at 8 o'clock—the twelfth day after operation and sixty-two hours after onset of symptoms—I opened the abdomen. Pulse 156, weak and thready. The pain, distention

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*Reported to the Nashville Academy of Medicine at its meeting on Thursday, November 26, 1896.

†Vid. preceding article, p. 8, second paragraph of remarks of Dr. Howard A. Kelly.

and vomiting were all increased, but the latter was not stercoreal. Coils of distended gut could be seen in peristalsis outlined through the abdominal wall. There was a point of tenderness in the left iliac region.

Section was made through the left linea semilunaris. Slight adhesions of the intestines to the line of previous incision were found, which were easily broken and the gut drawn out. A distinct adhesion flexure was found and separated. As this entire segment was collapsed, it was obviously below the real point of constriction. Continuing the search, loops of the red, angry, enormously distended gut were drawn into the incision, the proximal end being returned as it was drawn up from below. A slight transverse tear in the peritoneal coat from traction warned me that the point of anchorage was reached. Slipping my hand alongside, I found a dense adhesion, which was carefully freed and brought into view. There was a denuded area on the gut about four inches long and one inch wide. It was too extensive for peritoneal plastic operation, and the patient's condition would have hardly warranted a resection. It was dusted with iodoform in lieu of aristol.

At the site of constriction; though not participating in it, was found a long tubular band about the size of a small lead pencil and three inches long, both ends of which were attached. It was snipped with scissors. It was non-inflammatory. It may have been Meckel's diverticulum.

The rent in the peritoneal coat of the gut was closed by a continuous Lembert suture of silk, the gut returned, and the abdomen hurriedly closed with interrupted sutures of silkworm-gut. A high enema of brandy and normal salt solution (one pint) was given on the table to prevent shock. Purgative saline enemas were given in four and eight hours. Bowels moved after twelve hours, fourteen times in first twenty-four hours. Gas was not passed until the next day. Convalesence was undisturbed, except for a slight sinus in the hastily closed incision.

In a recent communication Dr. Kelly thought the obstruction due to a mild septic peritonitis with its accompanying adhesions. He further said: "There was a great deal of fingering done to release the uterus and tubes from a mass of velamentous adhesions, but I said very little about the matter as I was stripping

them up, as I wanted to concentrate the attention of the class on the steps of the conclusion."

In the twenty-eight cases of intestinal intubation in adults collected in Seguin's Annual for 1893 for the preceding year, the average time of operation was 3½ days. There were six deaths, or a mortality of 21.4 per cent.

Original Communications.

THOUGHTS ON ANTITOXIN.

JACOB R. KOHER, M.D., OF PHILADELPHIA.

Antitoxin has now been employed in the treatment of diphtheria less than three years, its introduction to this field having been made February 1, 1894. This date is destined to rank very high in the list of important dates in medical science. It marks the time when diphtheria antitoxin was promoted from the realms of the purely experimental to the wards of disease and to the human system—from the laboratory to the Hospital *Enfants de Malades* in the City of Paris.

Great discoveries have ever marked the strides of human progress. Columbus discovered America—that is, he stumbled upon it while searching for a new route to the East Indies. Isaac Newton discovered the law of gravitation—that is, with pencil and paper, and a superior mathematic ability, he figured out its existence and its importance in the economy of a mighty system of worlds. Jenner discovered the immunizing value of vaccine inoculations. That is, his keen observation discovered a potency in cow pox, which, while he could not understand its nature nor its action, he dared to champion in the face of a jeering world. It was not his lot to live to see his discovery widely adopted, but his posterity have long since witnessed nation vieing with nation for the honor of giving him nativity, while the centennial

anniversary recently celebrated to his honor could be merited only by one of earth's greatest benefactors.

Behring discovered antitoxin—that is, finding a co-related major and minor premise unimpeachably established, he resorted to logic for his conclusion or discovery—antitoxin. Antitoxin is a child of pure science, and is born of logic. It differs from the average of discoveries in that it is the correct answer to a scientific problem worked out with mathematic accuracy. In this lies the secret of the marvellous rise of antitoxin into popular favor. Introduced less than three years ago, yet already millions of injections of antitoxin, immunizing and curative have been made. Every portion of the civilized world has heartily volunteered to help swell the reports of cases treated by it.

It is this accuracy by which Behring reached nature's own and ancient remedy from the onslaught of the Klebs-Loeffler bacillus that insured the prompt reception on the part of the medical profession afforded this newest and most unique of the thousands of additions made in recent years to our already long list of remedial agents. Behring's conclusions bear the stamp of logic, while his claims are clearly and accurately defined. All this inspires confidence. Clearness of vision on the part of its founder and confidence on the side of the physician have done all to place antitoxin, in this brief space, upon the plane of eminence which vaccine inoculations, without these, struggled sorely for half a century to reach.

In no remedy ever advanced for the treatment of disease are the results more marked and the effects more constant than in antitoxin. The claims established in the laboratory and ticketed upon it when it was enlisted in the service of man are still made and realized to-day. They have not been abridged nor supplemented. The prudent physician knows these claims and makes no others for the antitoxin he uses· neither does he lay to its charge effects it is powerless in itself to produce.

Its effects are strictly limited to the bacillus diphtheria and its toxines. As these are favorably acted upon the symptoms following in their trail will be promptly ameliorated. Deposited by the needle into the cellular tissue of the victim of typical diphtheria the antitoxin goes rapidly to bathe every cell of the

body. Thus it neutralizes the depressant toxines in the system, the effect of which it is to cool the fever and calm the heart. It invades the home of the bacillus carrying with it death and expulsion. The result of this is that the false membrane loses its vitality. It is seen to grow pale, while gradually it is detached and expectorated. It is here the physician can best observe the effect of antitoxin, and always finds the highest source of gratification from its use.

That antitoxin has its enemies is not to be marvelled at. It would be more surprising were it otherwise. The enemies of antitoxin, ninety per cent of them, are physicians who have never used it, while the remaining ten per cent have, to say the least, never used a reliable preparation. What was ever advanced of true value that met no opposition? It was not aseptic surgery, the clinical thermometer, the hypodermic needle, anæsthesia nor vaccination. These still find opponents and probably always will.

That the injection of antitoxin in so large a number of instances should have been followed in a few cases by fatal results due apparently to the antitoxin used, should not startle us. In view of our experience with the use of the hypodermic needle for other purposes than the injection of antitoxin, or with the use of anæsthetics, or in anything in life aside from the barest of routine, would it not be passing strange were it otherwise? Who rises to abrogate the use of anæsthetics simply because fatal cases are recorded? Fatal results have followed the eating of an ordinary meal, yet nobody would abolish dining. Not even Dr. Tanner was entirely willing for that. Instances are recorded in which grief rose to a sudden fatal issue on the day of burial, yet funerals are not prohibited.

But we must not outrun ourselves. Antitoxin as applied to the prevention and treatment of diphtheria has already prohibited thousands of funerals. It is specific in this dread malady and is here to say.

FOR BURNS:

℞ Aristol..... ℥j to ℥ij
Dissolve in Olive-oil..... f℥ss
Add Vaseline, Lanoline..... aa ℥ij
M SIG.—Apply topically.

WHEN DOES THE AGE OF CONSENT BEGIN?

W. P. M'GILL, CAMDEN, TENN.

Bertha, æt. 5 years, began menstruating at four months, regular since then. Periods lasting at first one day, now three or four days. Rather small at birth, did not grow off well until after menstrul flow began (fourth month), since then has developed rapidly. At eleven months mammary glands about size of hen egg, or may be some larger. At two years weighed fifty pounds; at five years, weighs seventy-two. Voice more like an adult's than a child's.

CAMDEN, TENN., Nov. 26th, 1896.

Selections.

HYDROZONE IN GASTRIC AND INTESTINAL DISORDERS.—A period of nearly twelve years has elapsed since I first began the clinical use of hydrogen dioxide, generally referred to at that time as the peroxide of hydrogen. In 1887 I published a paper giving a detailed account of several cases in which it had been employed by inhalation, but even then I was thirty years behind the report of Dr. (now Sir) Benjamin Ward Richardson, of London, who had made a thorough investigation of its antiseptic, detergent, and healing properties. Notwithstanding the fact that this preparation had been known to the medical profession for that length of time, it had achieved little or no reputation. This, however, may be explained by the fact that the discovery preceded the dawn of bacteriology. Indeed, I was one of the early contributors to medical literature relating to the clinical value of this product, and since that time I have published a number of articles, embracing practically every application, both medical and surgical, to which hydrogen dioxide is adapted.

In the present communication it is my object to direct the

attention of the profession to its special value in the treatment of gastric and intestinal disorders. In gastritis, for example, there is no antiseptic which can be given with so much benefit as this remedy, because its effect is immediate, and even in considerable doses it is absolutely harmless. The same is true in regard to its employment in typhoid fever, cholera infantum, and Asiatic cholera. In the latter disease its efficacy has been thoroughly demonstrated by a number of well-known physicians, and its applicability in cholera infantum is well known to those physicians who have given careful attention to the most modern methods in the treatment of this class of cases.

The following brief notes will be sufficient to indicate the availability of this remedy in the treatment of the disorders already mentioned, although, in view of the fact that hydrozone is a more concentrated product, and withal a permanent solution, this latter remedy should have the preference. It contains at least double the volume of nascent oxygen which has heretofore been the standard for the medicinal peroxide of hydrogen.

In gastritis, either acute, subacute, or chronic, we have to deal with an unhealthy condition of the lining membrane of the stomach. The inflammation is attended with an increased output of mucus, which seriously interferes with the normal functions of the peptic glands. By the introduction of a small quantity of hydrozone, in the strength of one part to thirty-two parts of boiled or sterilized water, this objectionable mucus is at once destroyed by the action of the oxygen which is released, and the contents of the stomach remaining are promptly discharged into the small intestine. A patient suffering from gastritis should take at least half an hour before meals from two to four ounces of diluted hydrozone (one to thirty-two) and lie on the right side so as to facilitate the action of the stomach in discharging its contents.* The antiseptic properties of hydrozone thus used are sufficient to destroy the micro-organisms and leave the stomach

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*In chronic cases with a large output of gastric mucus, and particularly in gastric ulcer, concentrated solutions are not well borne at first, owing to the formation of oxygen gas, but this difficulty disappears with the continued use of the remedy, and no treatment of gastric ulcer can be regarded as complete without the local employment of hydrozone.

in a healthy condition for the absorption of nutritive pabulum. All forms of fermentation are promptly subdued by the active oxidation resulting from the liberation of nascent oxygen. The patient is then in a condition to take suitable food, which should be nutritious and easily digested, liquids being preferred until the active symptoms have subsided. Later, small portions of solid food can be ingested, but all food stuffs of a starchy character must be thoroughly masticated, in order to secure the action of the salivary secretion upon the starch granules, breaking them up, and lessening the tendency to fermentation in the stomach. After taking a meal, a patient with gastritis should follow it with medicinal doses of glycozone, which contain, in addition to the nascent oxygen contained in hydrozone, a percentage of glycerin which favors osmosis and assists in re-establishing the functional activity of both the peptic and mucous glands of the organ.

In the treatment of cholera infantum, typhoid fever and Asiatic cholera, the same general plan should be adopted in dealing with the stomach, always bearing in mind the necessity for having the patient remain in the recumbent position and on the right side for at least half an hour after the ingestion of the solution. In addition, however, to the preliminary treatment of the stomach, the same solution (one to thirty-two) is used as an injection into the lower bowel, care being exercised to insure its introduction as high up as possible. This can be managed by having the patient lie on the left side, with the hips well elevated, and the employment of a long, flexible rectal tube. In this manner we secure and maintain an antiseptic condition in both the stomach and large intestine, the importance of which will be understood when we consider the large number of micro-organisms which grow under these favorable conditions with such remarkable rapidity.

When deemed advisable, the solution introduced into the lower bowel may be combined with large quantities of either hot or cold water, which enables us to obtain the benefits of irrigation in addition to the antiseptic effects. These irrigations may be employed as frequently as deemed advisable by the medical attendant, but they will usually prove satisfactory if administered at intervals of four hours.

Although brief, it is believed this communication will prove

serviceable to a large number of practitioners who have hitherto found serious difficulties in counter acting the mephitic influences of bacteria in this class of disorders, and the clinical virtues of the remedy being now so fully recognized, no one will hesitate to adopt the methods suggested, which may be conveniently carried out in addition to the usual routine treatment.—*John Aulde, M.D., in New York Medical Journal.*

TREATMENT OF MAMMARY TUMORS.—No affection has increased to such an extent in this country as cancer. Williams states that the total number of cases in England and Wales in 1840 was 4,500, while in 1895 it was 40,000. Should all tumors of the breast be operated for fear that they may become cancerous, or should they not be disturbed on women of 25 to 30? Cow answers these questions in the *Revue de Therap. Med.-chir.* No. 13, remarking that every mammary tumor is liable to become malignant in a proportion of 10 to 50 in 100 cases. Even with a proportion of 1 to 100, he considers an operation indicated. But aside from the question of malignity, he thinks that there are other and sufficient reasons that justify an operation in every case of tumor; the care and the pains, especially during menstruation, etc. A mild operation puts an end to all these disturbances, if the tumor is not diffuse nor malignant. He considers a previous microscopic examination injurious, as it may produce a rapid surrounding growth of the tumor, or may open a passage for the introduction of cancer cells leading to further infiltration. In actually malignant neoplasms, the pectoral muscle and glands, as also the fat in the axilla, must also be removed. He recommends to first open and excavate the axillary cavity, avoiding thus infecting the depths of the opened mammary tissue, and then remove the whole *en bloc*. This method diminishes the hemorrhage, as all the vessels that supply the tissue involved are ligated. Cachectic cancer patients or patients with generalized cancerous nodules should not be operated upon, except with the strict understanding that it is only a palliative measure, as otherwise surgery is brought into disrepute, and patients with operable tumors are deterred from applying for relief in time. When the

pain finally compels the patient to seek relief, it is too late. —*Cbl. f. Chir.*, October 3.

TREATMENT OF UTERINE DISORDERS BY THE GENERAL PRACTITIONER.—That a very large percentage of the ailments of the female pelvic organs can be relieved and cured by intelligent and well-directed local and constitutional treatment is a fact which is becoming more and more evident every day. Indeed, it has always been held by the careful and conservative element of the medical profession that resort to the surgeon's knife is vastly of more frequent occurrence than there is necessity for. The profession at large, however, gave way to the craze for indiscriminate operating, not only in the domain of gynecology, but in every branch of the art and science of medicine, until now the general practitioner is become little else than a drummer for the surgical specialist. Such abject and absolute surrender to the specialist has injured the physician in more ways than one. The diminution of professional income has been marked, likewise the prestige; and that abiding faith and confidence which was wont to be reposed in the family physician is now, most unhappily, a thing of the past. The signs of the time, however, point to an awakening of the profession to the evils brought about by a monopolizing specialism. The family physician is beginning to see the disadvantages, both to himself and patient, and in consequence thereof many physicians are now treating successfully cases which but recently would have been turned over to the gynecological surgeon for mutilating operations. In order to illustrate, in a measure, the value of local and constitutional treatment, I beg to submit the subjoined clinical notes:

Case I.—A married woman, age 32. For several months had complained of dull heavy pain in abdomen and back, worse during menstrual periods. Menstruation was scanty and irregular, and there was a moderate leucorrheal discharge. She had lost flesh, was weak, had little appetite, and slept badly.

A specialist whom she had consulted had advised removal of the ovaries and tubes as the only relief. Examination revealed ovaries tender and somewhat enlarged, also endometritis.

She was ordered a hot basic injection twice daily, and put upon the following prescription:

℞. Dioviburnia ..... ℥ss
Fl. ext. cimicifuga ..... ℥ss
Fl. ext. hydrastis ..... aa ℥ss
Elix. Simplex ..... ad q. s. ℥iv
M. S.—Two teaspoonfuls four times a day.

Under the above treatment improvement began at once, and in two months she was discharged cured.

Case II.—A virgin, age 21, pale, anæmic, nervous, and of poor muscular development. For two years menstruation had been profuse, with occasional metrorrhagia. Her principal trouble, however, was dysmenorrhagia, the severity of the attacks often compelling her to resort to opium. The following prescription was ordered, conjoined with regular and systematic exercise in the open air:

℞. Sodii brom. ..... ℥iv
Dioviburnia ..... ℥ij
Fl. ext. ergot ..... ℥iv
Elix. simp. ..... ℥iv
M. Sig.—Two teaspoonfuls three times daily.

This was continued for eight weeks when an addition was made to the treatment in the shape of elixir of iron, quinine and strychnine. An occasional saline laxative was also given to overcome a tendency to constipation. The patient has now, at the end of three months, gained sixteen pounds in weight; the rosy hue of health is on her cheeks, and the menstrual function is normal. In conclusion I wish to remark that the preparation dioviburnia contained in the above prescription, is one of the best uterine remedies I have ever encountered. I must confess, however, that I was prejudiced against it at first (as I am against all proprietary medicines in general), but hearing it recommended by a physician of eminence and a gentleman for whom I entertain the warmest personal regard, I was led to give it a trial. In a number of other cases besides those related here, I have had most excellent results from dioviburnia. In cases requiring an antispasmodic I have found it of special benefit. In some cases I prescribe it alone, but generally in combination with other remedies.—*D. S. Maddox, M.D., in Medical Summary.*

THE FORMS OF DIABETES.—Dr. George Harley gives the following classification in *The Lancet*: 1. Hepatic diabetes—including the gouty variety. 2. Cerebral diabetes—including all cases of saccharine urine arising from nerve derangements. 3. Pancreatic diabetes—the most deadly form of the disease. 4. Hereditary diabetes—a form by no means uncommon, and one, too, in which both brothers and sisters may labor under the disease without either their maternal or paternal parent having been affected by diabetes, though more distant families may have suffered from it. 5. Food diabetes—including all forms of saccharine urine arising from the indigestion of unwholesome substances. Dr. Harley recommends, in addition to diet and opium or codeine, croton chloral, strychnine, phosphoric acid for thirst, and an absolute prohibition of alcohol.—*N. Y. Med. Record.*

INFLUENCE OF MITRAL LESION ON PULMONARY TUBERCULOSIS.—J. E. Graham (Montreal Medical Journal, for September, 1896) contributes an interesting literary-historical study on this subject. He gives many quotations from the great pathologists, to which he adds several cases of his own supporting the view that mitral lesions exercise a favorable and preventive influence in the development of pulmonary tuberculosis.

If the condition of the lung which results from mitral lesion is a barrier to tuberculosis, can we without injury to the patient bring about a somewhat similar condition in those who do not suffer from heart disease? It would be out of the question to induce passive hyperemia of the lungs, even if we knew how it might be brought about. An active hyperemia would no doubt have a similar effect, and we are acquainted with several methods whereby it can be induced.

The writer has attempted to find out the condition of the lungs of those who live in high altitudes, and comes to the conclusion that the conditions are not unlike those produced by mitral disease. From this pathological study he draws the conclusion that the most important factor in the treatment of pulmonary tuberculosis is chest exercise by which the pulmonary apices are expanded and active hyperemia induced.—*Medicine.*

A CASE OF TETANUS TREATED WITH ANTI-TETANIC SERUM; RECOVERY.—The patient was a little girl, age 5; healthy, history good up to this attack. About ten days before I was called, patient had received an injury of the left thumb from the stroke of a hammer in cracking nuts. The nail was badly bruised, flesh at base of nail was lacerated to some extent and the nail separated from thumb at its base. The wound healed nicely under local treatment. About ten or twelve days after the injury the parents noticed a change in the child's disposition. She became irritable, would not play, slept badly, ate little and required constant attention. In a day or two these symptoms were followed by stiffness of the spinal muscles and of the upper and lower extremities. The muscles of the face were so contracted as to give the child a peculiar expression. When I saw the patient for the first time the symptoms were very much aggravated. Tonic spasms of the muscles of the spine and of the upper and lower extremities were almost constant. The slightest effort to exercise, eat, drink or perform any muscular labor was accompanied with severe tetanic spasms. The risus sardonicus so common in such cases was a very marked and constant feature. The jaws could not be opened at any time more than a half an inch.

Diagnosis was easily made and the case treated for a few days by the ordinary methods of the text-books; but there was no improvement. Obtaining through the Kansas City branch of Parke, Davis & Co. a sufficient quantity of their tetanus antitoxin, treatment was begun two weeks after the first manifestation of the characteristic symptoms. We gave the child five doses of two drachms each hypodermically about every eight hours. No other treatment was used. We nourished the patient carefully. The symptoms abated visibly in twenty-four hours. The muscular spasms became less and less severe and frequent, until they disappeared.

In this case the remedy seemed to act promptly and favorably, and it may be fairly credited with the favorable result. In the treatment of the case, Dr. W. B. Adams, of Montgomery City, was associated with me, and bears out my judgment of the remedy.—*G. E. Muns, M.D., in the Journal of Am. Medical Association.*

CATHARSIS FOR PREGNANT AND LYING-IN WOMEN.—Dr. Edward P. Davis, at the last meeting of the American Gynæcological Society, read a paper on "Intestinal Bacteria as a Source of Infection Complicating Obstetric Operations," and, in closing the discussion which followed, said (*Amer. Jour. Obstetrics*, Aug., 1896) he had asked several therapeutists regarding the best purgative to secure an antiseptic condition of the intestine. Prof. Han had told him that the best method of purgation to thoroughly render the intestine aseptic was the use of minute doses of mercury, particularly the bichloride. He advised $\frac{1}{200}$ $\frac{1}{120}$ of a grain of the bichloride of mercury several times a day for a number of days, in conjunction with the use of saline purgatives.—*Canadian Practitioner*.

THE EMPLOYMENT OF ARGONIN IN THE TREATMENT OF GONORRHŒA.—Bender (*Jour. de Med. de Paris*, May 10, 1896) gives the following as the result of his observations in the treatment of gonorrhœa by this drug:

Argonin dissolves in ten times its weight in water; four fluid drachms of this solution contain an amount of silver equivalent to fifteen grains of the nitrate. This solution does not form a precipitate in the presence of chloride of sodium or the albuminoids,

Jadossohn's treatment of gonorrhœa consists in the injection. three or four times a day, of about three fluid drachms of this solution, gradually increasing the strength up to 7.5 per cent. The solution should be retained in the urethra, if possible, for ten minutes. The injections are not absolutely painless, and have no astringent effect. Fifty-four cases treated in this manner recovered in a maximum of six weeks. In thirty acute cases the gonococci disappeared in one week in twelve cases, in two weeks in fourteen cases, in three weeks, and less, in four cases. In twenty-four chronic cases the gonococci disappeared at the end of one week in seven cases, at the end of two weeks in ten cases, and in three weeks in seven cases. After the gonococci disappeared ichthyol was used. Failure occurred in two cases only.—*Canadian Practitioner*.

TO OVERCOME THE CATARRH FOLLOWING THE ADMINISTRATION OF IODIDE OF POTASH.—Dr. Cohen (Lancet) advises that, in cases in which there is coryza from the use of iodide of potash

tincture of belladonna be used, five minims being added to each dose of the potash.—*Memphis Medical Monthly.*

Editorial.

OUR CENTENNIAL.

The beginning of the year finds the work of preparation for the Centennial Exposition well advanced. With all of the difficulties with which the management have had to contend, particularly the scarcity of ready money, they have accomplished a great work, and it would be difficult to understand how more could have been done under the most favorable circumstances. All of the principal buildings except the History, Childrens' and Negro buildings have been completed, and these are under way, and as the great scheme is developed from day to day the admiration and enthusiasm of the people increases, and the demand for space in many departments already exceeds the capacity of the immense buildings, so that extensions and annexes are necessary.

The great cities of the northwest are awake to the importance of having exhibits, and Chicago, St. Louis, Cincinnati and Louisville are trying to surpass each other in the magnitude and importance of their displays. The eastern cities are also preparing to be represented, the state legislatures are asked for appropriations, and the enterprising business men of the cities, seeing the importance of being represented, are endeavoring to raise money for state exhibits by private subscriptions.

This enthusiasm has been especially noticeable since the settlement of the political question, less than sixty days ago, and if it spreads and grows in like proportion during the four months which remain before the opening, the success of the Exposition will be greater than its most sanguine friends at first anticipated. It has already assumed an international character, many of the foreign nations will be officially represented, and it being the only national attraction of the year, the interest throughout this country will be universal.

The appropriation by Congress for a $30,000 building and a $100,000 exhibit, showing the practical operations of the United States Government, has been approved by President Cleveland, the Supervising Architect of the Treasury Department is now at work on the plans for the building, and work on its construction will be commenced early in January. The architecture of the Government Building will conform to the general character of the other main buildings, and will add greatly to the magnificence of the scene.

The citizens of Nashville have furnished the means to carry forward the work on the grounds and buildings, and they do not ask for assistance to enable them to complete the work. They do not owe a dollar, and while the work already done has cost something less than half a million

dollars, including cost of administration, printing, and all other expenses, the management has used such economy and spent money so judiciously that as much has been accomplished with the means at hand, as under ordinary circumstances would have cost twice as much. There is much to do, and more money will be required, but the means will be found, and the work accomplished.

It is expected that the Tennessee Legislature will make an appropriation, and there should be no question about the propriety of such an act. The members will be brought face to face with the fact that Nashville has done more than any other city has ever done for a similar enterprise. They will see for themselves the wonderful progress of the work, and as it is for the benefit of the entire State, and for the advancement and development of the South, they will not refuse to give it the support of the State.

Dr. Jas. D. Plunket, Chief of the Department of Medical and Surgical Appliances, has his work well under way, and the chairmen of the different sections in this department are all actively engaged ln getting matters in ship-shape, having already done much towards making this department alone well worth the time and expenditures of the most distant of our readers to visit the Capital City of Tennessee during the coming summer months.

We have during the past year, from time to time, endeavored to give a brief but succinct account of the progress of the work. In the few months intervening between now and the opening in May next, we will still attempt to keep our readers as sufficiently informed as to the further progress of the work as our space will permit.

OUR ADVERTISERS.

We begin the initial number of the year with a larger and more satisfactory advertising clientele than any previous year; furthermore, exercising a careful surveillance over this department of the JOURNAL, which has ever been our care, we can say without hesitation that in the entire list will not be found a single article that is not well deserving a thorough trial, while many of them are of well-known, long-tried and established excellence and reputation.

PHILLIPS' PHOSPHO-MURIATE OF QUININE will never disappoint in deficiency of Phosphates, lack of nerve tone, malarial manifestations, and convalescence from febrile diseases.

THE WM. S. MERRELL CO., so well known as reliable manufacturers of Green Drug Fluid Extracts, and other pharmaceutical specialties, have an important notice in regard to Fluid Hydrastis. This establishment is so well and widely known that they need no endorsement at our hands; however, we request our readers to look well at their statements, or they may miss something.

SYR. HYPOPHOS COMP.; FELLOWS', has had many imitations and but few if any equals.

ARSENAURO is a remarkable alterative tonic, increasing both quantity and quality of red blood corpuscles.

HAYDEN'S VIBURNUM COMPOUND is a boon, indeed, in the ailments of women and in obstetric practice; and the URIC SOLVENT (Hayden's) is a scientific combination for renal disorders.

BROMIDIA is an old favorite the world over, far superior as a brain sedative to opium or any of its alkaloids, and with its companions, PAPINE and IODIA, are all now *standard*.

THE TILDEN COMPANY, of New Lebanon, N. Y., extend a most cordial greeting to our readers in this issue. An old house that, like old wine, has improved with age. They will have other good things to offer our readers during the year.

WAYNE'S DIURETIC ELIXIR is used by Prof. W. Frank Glenn and many other specialists in all irritations of the kidneys, bladder, urethra, prostate, etc.; the TONIC APHRODISIAC TABLETS (Wayne) are composed of phosphorus, nux vomica, damiana, saw palmetto and coca.

LISTERINE is antiseptic and prophylactic, non-toxic and non-irritant, for external and internal use, and is in itself, its own best advertisement.

FEHR'S COMPOUND TALCUM is a most excellent sprinkling powder, good in all affections of the skin.

FEBRILENE in malarial regions makes the baby laugh, wax fat and grow old gracefully and normally.

VIN MARIANI nourishes, fortifies, refreshes, aids digestion, strengthens the system and is an agreeable tonic stimulant without unpleasant reaction.

TONGALINE, liquid or in tablets, is a *sine qua non* in rheumatic affections. It has never disappointed us.

DIOVIBURNIA, NEUROSINE and PALPEBRINE are well and favorably known to many of our readers. If you have not tried them, fail not to avail yourself of an opportunity.

MARSHALL'S SADDLE-BAGS can be converted into a most complete buggy-case, made of best material and in the highest style of workmanship.

GLYCOZONE and HYDROZONE (Marchand's) have never failed to give satisfaction. No disappointment has ever resulted except when a substitute has been palmed off on the unwary and unsuspecting. Bear it in mind, the more excellent a preparation the greater likelihood of substitution.

WILLIAM R. WARNER & Co.'s BROMO SODA, INGLUVIN and SUGAR-COATED PILLS have well won a world-wide reputation. Why go to the springs when with WARNER & Co.'s LITHIA TABLETS you can make water *just as easy*.

COLDEN'S LIQUID BEEF TONIC and HYDROLEINE are too well and widely known to need commendation at our hands.

THE CINCINNATI SANITARIUM is a most excellent private hospital for mental and nervous diseases, opium habit, inebriety, etc., at College Hill, Hamilton County, O. Write to Dr. O. Everts, Superintendent, for particulars.

SANMETTO is specially valuable in prostatic troubles, pre-senility, difficult micturition, urethral inflammation, irritable bladder and ovarian pains.

MELLIN'S FOOD, prepared according to directions, is a true Liebig's food, and the best substitute for mother's milk yet produced. Try it and you will agree with us.

ANTIKAMNIA, in POWDER or TABLETS, is a most excellent remedy in influenza.

LISTERINE is the standard of antiseptic preparations. The imitators all say "it is something like Listerine."

THE NASHVILLE, CHATTANOOGA & ST. LOUIS RAILWAY is the best equipped and most handsomely furnished road in the entire South.

MCINTOSH BATTERIES have no equal for durability and perfection of work.

BELLEVUE HOSPITAL MEDICAL COLLEGE. Send to Prof. Austin Flint, M.D., Secretary, East 26th Street, New York City, for catalogue.

WHEELER'S TISSUE PHOSPHATE is a nerve food and nutritive tonic, valuable in consumption, bronchitis, nervous debility, etc.

THE PRIVATE SANATORIUM FOR WOMEN of Dr. Richard Douglas is a most elegant and commodious building, handsomely fitted with all modern conveniences and thoroughly equipped in every detail for the management of gynecological cases and abdominal surgery.

MR. THEO. TAFEL, 153 North Cherry Street, Nashville, Tenn., can supply you with any surgical instrument or appliance that you may need. If he does not have what you want on hand, he can soon make it. He is reliable, a good workman and keeps nothing but the best.

SCHERING & GLATZ, 55 Maiden Lane, New York, N. Y., will furnish you on application valuable literature in regard to Creosotal (Creosote Carbonate) and Guaiacol Carbonate.

HELONIA TABLETS, afford a simple and efficacious method of treatment of leucorrhœa and vaginal discharges without the uncertainty and annoyance of medicated vaginal injections.

PEACOCK'S BROMIDES is one of the best combinations we have ever tried. CHIONIA is a most excellent hepatic stimulant. CACTINA PILLETS are indicated in abnormal heart action; SENG in malnutrition and indigestion.

THE ELIXIR OF SIX IÓDIDES is prepared from the Chemically pure salts, and is a most excellent combination—these alteratives acting far better combined than singly.

DRS. HAGGARD have organized and thoroughly equipped in this city a Private Infirmary for Women, a high-class institution for the care of gynecological cases and abdominal surgery.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE and THE MEDICAL DEPARTMENT OF VANDERBILT UNIVERSITY have larger classes in attendance this year than last. They are thoroughly equipped in every detail for complete and practical medical education.

ANGIER'S PETROLEUM EMULSION with Hypophosphites, the flesh-forming nutrient is a repairer of waste—no bad taste, no gastric disturbance, and an aid to digestion.

THE MORNINGSIDE RETREAT, near this city, is a most excellent chartered institution for treatment of mental and nervous disorders, alcoholism, and morphinism.

DR. C. R. ATCHISON'S Infirmary for Skin Diseases and Cancer is conducted strictly in accordance with the ethics of the regular medical profession.

MESSRS. PARKE, DAVIS & Co., of Detroit, Mich., with branch establishments at New York, Kansas City, New Orleans, Baltimore, Walkerville, Ont., and London, England, have done much, indeed, with their extensive establishment in behalf of medical science. The many new remedies introduced by them, the perfect and satisfactory preparation of old remedies, their fluid extracts, elixirs, pills, etc., are well and widely known. If any reader of this journal is favored by a call from any representative of this house he may rely upon meeting a gentlemen, courteous and well qualified, and the time devoted to him will be well spent.

NEW ORLEANS POLYCLINIC.—The tenth regular session of the New Orleans Polyclinic will begin on January 11, 1897, to continue for three terms of six weeks each, ending May 15, 1897. Vast facilities for practical post-graduate teaching at the great Charity Hospital, at the Eye, Ear, Nose and Throat Hospital, and at the special clinics in the Polyclinic's new building. For announcement or further information, address New Orleans Polyclinic, P. O. Box 797, New Orleans, La.

MR. GEORGE S. DAVIS, General Manager of the big house of Parke, Davis & Company, of Detroit, has retired and leaves shortly for California to take a protracted and much needed rest. No change whatever in

the business or policy of this great house will ensue upon Mr. Davis' retirement. Mr. William M. Warren, who has been connected with the house for many years, and has for two years been its virtual manager, has been elected vice-president and general manager of the company to succeed Mr. Davis. Mr. Davis, however, retains a nominal connection with the firm as advisory manager. In announcing that there will be no change in the policy of the firm, the new manager, Mr. Warren, says the business of the firm was never before so prosperous. In spite of the commercial distress this great house has in ten months of 1896, done $200,000 more business than in the same period of 1895. It is to be regretted that the private interests of Mr. Davis have suffered somewhat, even while his firm was so prosperous. Mr. Davis' generosity to the medical profession in conducting the *Index Medicus* for a number of years at a steady loss, will not be forgotten by physicians, and it will be a general wish that his reverses shall prove only temporary.

THE UNIVERSITY OF TENNESSEE.—The alumni of the University of Tennessee at Knoxville are preparing a full catalogue of all students who ever attended there. The organization of the University dates from the foundation of the State, and has, therefore, thousands of names on her roll of students. The Committee having the catalogue in charge report very satisfactory work so far, and hope to have their work done by next commencement. They invite correspondence from all sections of the State. They especially desire to have the names of all former students on their correspondence list. All such will do well to send in their names at once to Thos. D. Morris, Knoxville, Tennessee, who is secretary of the committee.

MAILED FREE TO PHYSICIANS: A reprint of how I treat respiratory diseases with antiseptics, viz.: Catarrh, La Grippe, Asthma, Throat, Bronchial and Lung Diseases. The medicines can be carried to parts affected. Over 800 patients treated and ninety per cent. successful. Address, R. C. COTTRINGHAM, M.D., 513 Reade St., Moberly, Mo.

LOOK OUT FOR IT! Quite a number of our friends have already sent in their renewals for 1897. Those who have not, as well as a few who are in arrears prior to 1897 will find enclosed in the wrapper of this number a little slip which is self-explanatory—possibly it is somewhat familiar to some. Well, just look out for it, and return it to us by mail accompanied by the needful, in currency, post-office or express money order, bank draft, or in one or two cent stamps. Business is business with doctors as well as others. "It takes money to make the mare go"—and we want to keep our mare going—yes, and our printers, too.

SPECIAL NOTICE TO OUR READERS.—Through carelessness to some extent, in our mailing department, some copies of the December number were badly wrapped, and may have failed to reached their proper destination. We secured quite a number from the post-office here and re-wrapped them, but some may have got beyond our reach and have miscarried or been lost. If any one has failed to receive the December number, and will let us know by postal card or otherwise, we will take great pleasure in mailing another copy at once. Possibly, the fault was to some extent, due to ourselves. We have let the journal grow so large and lusty that it had become too "big for its breeches." In other words we used a mailing wrapper that we had been using for a long time, and it was too light for so weighty a package as our December issue. Well, we don't propose to cut down the size of our journal—thanks to our many kind friends who have so practically shown their appreciation of it, but will try and see that its outside will hereafter keep pace with its inside.

AN ALTERATIVE OF UNSURPASSED POTENCY.—It is not unlikely that all our readers are well and favorably acquainted with Elixir Iodo Bromide of Calcium Compound (Tilden). A preparation which has stood the test for over thirty years. But it is natural to be influenced somewhat by the extravagant promises made for other preparations, claiming to be "the same thing," or "just as good," and offered to the profession by supposedly reputable houses. It is therefore apropos to remind the profession that "Elixir Iodo" has no equal in its special field, and that the attempts of dishonorable competitors to foist upon the doctors worthless imitations is doing incalculable damage to the reputation of the physician and the well-being of his patient. I have been using it for thirty years and it has never disappointed me. DEERING J. ROBERTS, M.D.

ON OUR OFFICE WALL hangs a new calender, and I know, my dear doctor, if you have not yet received one, a letter or postal card directed to *The Antikamnia Chemical Co.* will bring you one We herewith give the letter accompanying this pretty specimen of art:

ST. LOUIS, Dec. 15, 1896.

DEERING J. ROBERTS, M.D., Editor SOUTHERN PRACTITIONER, Nashville, Tenn.

Dear Doctor:—The beautiful and time-honored custom which makes each recurring Christmas season the occasion for the especial remembrance of friends, gives us an opportunity to present you with the accompanying useful souvenir. We offer this as an expression of the esteem in which we hold the medical laborer in the journalistic field, also our friends of the medical profession generally; and as an acknowledgement, as well, of our appreciation of the courtesies which its members have extended to us.

No doubt you will be interested in the fact, that these "skeleton sketches" are reproductions of the original water colors, from the brush of the celebrated artist physician, Louis Crusins, A.M., M.D. The facial expression, so faithfully depicted, is original, from an artistic view, and the artist's skill in giving "life expression" to a skull, is truly wonderful.

Trusting that time in its flight may bear lightly upon you and yours, we remain with the season's compliments. Sincerely yours,

THE ANTIKAMNIA CHEMICAL COMPANY,
FRANK A. RUF, Pres't and Treas'r.

THE ACTION OF TONGALINE is largely eliminative. Seeking out the source of the trouble, the poisonous products of retained excretion or preverted secretion, it combines with them, and either neutralizes them directly or renders them soluble so that they are carried off by the emunctories.

By its stimulating action, not only on the kidneys, but also on the skin, on the digestive organs, etc., it hastens the processes made possible by its presence. Thus, for instance, by combination with insoluble uric acid or its insoluble salts, it renders them soluble, and by stimulation of the kidneys, it hurries out of the system the soluble compound.

By its action on the liver, it renders unnecessary the administration of mercury in any form, without, however, conflicting with it, or with its salts or other combinations, when they are especially indicated as in the diseases and conditions of syphilis. It also does away, in a great measure, with the necessity for the use of cathartics, especially the more violent ones, which in the opinion of some most eminent men, nearly always do more harm than good."—Extract from a "Treatise on Rheumatism, Neuralgia, etc.," issued by the Mellier Drug Company, St. Louis.

S. L. REED; M.D., Highland Park, Ky., October 28, 1896, writes:—

"Have only time at present to copy notes in reference to a case in which I used Bromidia. We called suddenly early on the morning of June 10th to see Mrs. Mc.G. Patient had been under treatment of Dr. R., who had been called, but failed to answer. Found patient suffering with acute mania, very violent and destructive. On questioning family found patient had delivered herself four days previous of a three month's fœtus. Since that time patient had been receiving enormous doses of morphine with no apparent result. As the patient was beyond control, improvised a straight jacket of her husband's sweater and bicycle belt. Ordered half ounce Bromidia (Battle & Co.) every half hour until quiet. In two hours patient was sleeping. Patient continued to receive Bromidia whenever indicated, along with other treatment, and in a few weeks was apparently well, although Dr. R. still has her under observation. This

will show the superiority of Bromidia over over morphine especially in cases with head symptoms.

I have had moderate success with Iodia, but could sing the praises in several columns if I had the time.

THE most frequent forms of diseases of the eye are those located in the mucous membrane of the eyelids, (conjunctiva). When left alone they are not only a fruitful source of annoyance and suffering, but they often endanger the existence and usefulness of the eye as an organ of sight. The frequency of these external affections of the eye has made their treatment one of the richest mines for quacks from the oldest times. All practitioners of medicine being called upon to treat these diseases, especially those in the country recognize from the formula of Palpebrine a product of no untried remedies, but entirely reliable in the treatment of external eye diseases. The Dios Chemical Co., of St. Louis, Mo., will mail free sample and literature on application.

WE TAKE pleasure in calling attention to a very handsome pamphlet, presenting some practical and interesting facts concerning Tongaline, and the different troubles for which that remedy is intended, namely: rheumatism, neuralgia, nervous headache, la grippe, gout, sciatica and lumbago. The brochure is rendered most attractive by being embellished with original drawings and also handsome photogravures of a number of eminent members of the medical profession now deceased. It is the aim of the publishers to mail a copy to every physician in the country, but any who fail to receive such can obtain one by applying to the Mellier Drug Company, St. Louis.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Reviews and Book Notices.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Volume VII.—Diseases of the Respiratory Organs and

Blood, and Functional Sexual Disorders. WILLIAM WOOD & Co., New York: 1896.

As it was necessary to publish Volume VIII. before Volume VII., the series of this great undertaking is now consecutive up to volume VIII.

The present volume is the work of ten different authors, nine of whom, as it happens, are Americans.

Well, we have had our say in regard to the Twentieth Century Practice. The more I see of it the better I like it. It is and will be to the world a gem of the purest water. As a specimen of medical book publishing Messrs. William Wood & Co. are in the lead. Their Twentieth Century Practice will hold it own for many years.

THE DISEASES OF THE MALE URETHRA. By R. W. STEWART, M.D., M.R.C.S., Surgeon to the Mercy Hospital, Pittsburg, Pa. One volume of 229 pages, post-octavo, illustrated by numerous wood engravings. Muslin, $2.50; flexible morocco, $3.25. New York. WILLIAM WOOD AND COMPANY. 1896.

The author of this work has placed the subject before the reader in as concise form as is consistent with its proper elucidation. Wherever necessary to facilitate the understanding of phenomena of urethral disease, the anatomical and physiological points bearing on the subject are fully considered.

More prominence than is usual in works of this kind is given to the pathology of the diseases of the urethra. This is particularly so in that part of the work which is devoted to the consideration of chronic urethritis.

While the author has limited the work to the diseases which are either inflammatory or the result of inflammation of the urethra, he has included a description of the inflammatory diseases of the glands which communicate with the urethra, namely, Cowper's glands, the glands of the prostate, the seminal vesicles and the epididymis.

In the part of the work devoted to the consideration of stricture the necessity of discriminating between stricture of large and small calibre is emphasized, and the relationship of stricture to gleet is considered in detail.

While the author takes a conservative view of the treatment of urethral diseases, and has hesitated to present or endorse

methods of treatment which have not stood the test of time and experience, at the same time he has endeavored to place the subject in as modern a form as seems consistent with safety, and has produced a book which can not fail to be a safe and most welcome guide in the treatment of this troublesome class of affections.

DISEASES OF THE STOMACH. A Text-Book for Practitioners and Students. By MAX EINHORN, M.D., Instructor in Clinical Medicine at the New York Post-Graduate Medical School and Hospital; Visiting Physician to the German Dispensary. 496 pages. New York. WILLIAM WOOD AND COMPANY. 1896.

Dr. Max Einhorn's book is the first original work published in America which treats of this important subject, and as such it must fill a long-felt want. The new methods of diagnosis, which have made great advances of late, are here thoroughly and concisely described.

In discussing the different diseases of the stomach and their classification, the author shows great originality and has successfully endeavored to make the differential diagnosis as clear as possible.

The treatment and diet are fully given in each particular disease, and diet-lists stating the quantity of foods are often appended.

The book contains numerous original drawings of apparatus and microscopical specimens, thus greatly facilitating the conception of the text.

For every physician wishing to keep pace with the progress of the times the present book must be a welcome acquisition.

OVER THE HOOKAH, the Tales of a Talkative Doctor. By G. FRANK LYDSTON, M.D., Fellow of the Chicago Academy of Medicine; of the Southern Surgical and Gynecological Association; and the American Academy of Social and Political Science; Professor of Criminal Anthropology in the Kent College of Law; Member of the American Medical Association; of the Association of Military Surgeons of the U. S.; Hon. Fellow Texas State Medical Association, etc., etc. 8vo., crimson cloth, gilt top, illustrated from the author's designs, by Mr. C. Everett Johnson, pp. 618, price $4.00. 1896. FRED. KLEIN & Co., Chicago, Publishers.

In the guise of chats, under the soothing influence of dinner

and tobacco, the veteran physician unlocks the storehouse of memory and treats a young friend to choice bits of wisdom, philosophy, humor and pathos, interspersed with anecdotes; the whole making one of the choicest bits of reading we could desire. The author is particularly happy in character-drawing, and we do not recall anything more truthful than his descriptions of city and country doctors. The book will be read with no less pleasure by the layman than by the physician, and its cheery pages ought to cure the greatest pessimist who ever despised and decried the things of this life. The volume is an exqusite specimen of the typographical art, and is magnificently illustrated. The only fault to find with the book, if any, is that the success it will evidently meet at the hands of both lay and secular readers may spoil a "mighty good doctor," by converting him into an author. Alas! such things have come to pass.

THE PRACTICE OF MEDICINE. A Text-Book for Practitioners and Students with Special Reference to Diagnosis and Treatment. By JAMES TYSON, M.D., Professor of Clinical Medicine in the University of Pennsylvania and Physician to the Hospital of the University; etc. Illustrated. Royal octavo, pp. 1184. Price, $5.50. P. BLAKISTON, SON & Co., 1012 Walnut Street, Philadelphia, Publishers: 1896.

So we have another text-book on the practice of medicine, and its author is candid enough to make an apology for launching it out upon the world. Well, he need not. In the brief life of this journal, the practice of medicine has not only been revised time and again, but has been entirely rewritten. The great advances along all lines have made the classic editions of Watson, Wood, aye, and even the later Flint, at the time of his death, absolutely out of date and obsolete. While these grand teachers gave us the best of their day and times, the recent changes have been so marked that their post-humous editions could not keep up with them, and we regard it as fortunate indeed that so diligent a student, careful observer, and and painstaking teacher of medicine, wide awake, and well in the van-guard of the most progressive of the day, should have given us in so masterly and entertaining a manner the benefit of his abundant experience in the hospital ward, at the bed-side, and at the post-mortem table. To his own experience he has added that of others, selecting that which was good, and leaving

out much that was immaterial, showing himself a careful winnower and gleaner in the fields of ripened and ripening knowledge.

The following language from the pen of an esteemed and able contemporary in the author's own city in reference to this grand work, we must cordially endorse. "The author has succeeded exceptionally well in presenting graphic pictures of the symptoms, course and pathology of the various diseases. His language is direct, and there is no unnecessary verbiage. His remarks upon practice are judicious and practical." This is a brief, but most complete summing up of what a text-book on practice of medicine should be.

Want of space prevents a more extended extended notice, and we close with the statement that the typography, illustrations, paper and binding are of the best, and fully in keeping with the grand mental labor expending in producing such an excellent and highly appreciated volume.

REMSEN'S THEORETICAL CHEMISTRY.—New (Fifth) Edition. Principles of Theoretical Chemistry, with special reference to the Constitution of Chemical Compounds. By IRA REMSEN, M.D., Ph.D., Professor of Chemistry in the Johns Hopkins University, Baltimore. New (Fifth) and thoroughly revised edition. In one royal 12mo. vol. of 328 pages. Cloth $2.00. LEA BROTHERS & Co., Publishers, Philadelphia and New York.

Since the first edition of this most excellent little work was laid before the profession, not only have *four* successive ones been demanded, but its German and Italian translations have been received with favor by our trans-Atlantic confreres. It furnishes the clearest and most authoritative statement of the principles underlying the whole of modern chemistry, and a conception of the foundation is obviously essential to any adequate and effective grasp of the superstructure of the science. That this book should be so appreciated at home and abroad, dealing with a most important though intricate subject, is a high mark of honor to the educational methods of this country and its able author. He has revised the book throughout, thus placing it fully up with the marked advances of these progressive times.

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Original Communications.

COCAINE—ITS USE AND ABUSE.

BY T. HILLIARD WOOD, M.D.,

Professor of the Diseases of the Eye, Ear, Nose and Throat, in the Sewanee Medical College; Professor of the Diseases of the Eye, Ear, Nose and Throat, in the Medical Department of the University of Tennessee, Nashville, Tenn.

Cocaine is usually employed in solution, and this should always be fresh. Solutions that are kept for several days gradually decompose, a flocculent deposit forms, and the strength of the cocaine is weakened. It is easy to observe the difference in anæsthetic effect between two equally strong solutions of cocaine, one of which is fresh, and the other, one or two weeks old. It does not seem practicable to preserve the solution in good condition by the addition of boracic acid, or any other antiseptic.

For these reasons the solutions kept in stock by druggists should not be used. It is better to have a fresh solution prepared every few days. Instead of a solution the cocaine may be used in the form of crystals which, for example, may be placed on

a turbinated body before applying the cautery, or the nasal septum before using the saw. When thus employed it gives a very complete local anæsthesia. But for obvious reasons, the solution, in most cases, is more convenient to use than the crystals.

The strength of the solution should be governed by the nature of the case in which it is to be used. If the solution is to be injected hypodermatically, or is to be applied to an extensive area of absorbent surface, as in the nose or throat, the solution should be weak, *i. e.*, 2 to 3 per cent. because under such conditions the opportunities for the absorption of the cocaine into the general circulation are the best, and if strong solutions are employed, toxic symptoms will most probably develop. Likewise, when applied to parts in which the circulation cannot be controlled, as the pharynx or rectum, the solution should be weak.

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On the other hand when the cocaine is to be applied to only a limited area of an absorbent surface, as for the removal of a spur of the nasal septum or the application of the cautery to a turbinated body, the solution should be strong, *i.e.*, 5 to 10 per cent. Also when used on parts where the circulation by use of the tourniquet can be controlled, as the finger or the penis, the solution may be strong. Under such conditions the gradual loosening of the tourniquet after the operation will enable the hemorrhage to wash the cocaine out of the tissues; and as but little of the drug enters the general circulation toxic symptoms rarely result.

The methods of application will next be considered. Mucous, ulcerated and denuded surfaces absorb cocaine, but the healthy skin does not. When mucous or submucous tissues are to be anæsthetized the solution is applied directly to the membrane, and is readily absorbed. The same may be said of ulcerated, raw or abraded surfaces. An exception in the case of mucous membranes is found when they are violently inflamed. One can not successfully anæsthetize a conjunctiva, the seat of an acute purulent inflammation. Under such conditions the cocaine seems either not to be absorbed, or if absorbed is too rapidly removed by the increased circulation to produce its local effect.

It may be stated here that cocaine is absorbed with especial freedom by wounds, where there is no present hemorrhage to

wash the drug away. A very small amount of cocaine applied to such wounds is often followed by grave toxic symptoms. A demonstration of this fact has often followed the injection of cocaine solutions into the urethra after an internal urethrotomy. If the skin or subcutaneous tissues are to be cocainized the solution should be injected hypodermatically. Or galvanism may be used to drive the solution through the skin. If the sponge or cotton attached to the positive pole of a galvanic battery be moistened with a solution of cocaine, and applied to the skin, anæsthesia of the parts results in from five to fifteen minutes, depending on the strength of the solution and of the galvanic current.

I wish next to call attention to the methods of application and the uses of cocaine in special parts of the body.

EYE.—When the eyeball is to be cocainized the solution is simply dropped on it, and repeated once or twice at intervals of two to five minutes. Within ten to twelve minutes anæsthesia of the conjunctiva and cornea is complete. But if it is desired to anæsthetize the iris some additional minutes should be given to allow time for absorption into the eye. In cases of extensive operations on the iris, as in iridectomy for glaucoma, the iris should be thus anæsthetized. In tenotomy of a rectus muscle, or enucleation of the eyeball the cocaine may be injected with a hypodermic syringe, but always in a weak solution, as toxic symptoms readily occur.

Likewise in operations on the lids, especially the more extensive operations, as for entropion, ectropion, etc., the cocaine should be injected into the lid. Cocaine applied to the tarsal conjunctiva will not produce anæsthesia in parts of the lid external to the tarsal cartilage. It is therefore incomplete and unsatisfactory. The cocaine injected into the lid may be kept there by applying some of the different forms of lid clamps to the orbital part of the lid and so retarding the circulation. In cocainizing the tear ducts the solution may be injected with an Anel syringe into the lachrymal sac and nasal duct.

While cocaine anæsthesia is sufficient for most operations on and about the eye, yet there are cases in which general anæsthesia is better, as in most cases of enucleation, in abscesses and tumors of the orbit, iridectomy for acute inflammatory glaucoma, and in most operations upon unruly children.

When cocaine applied to the eye produces toxic symptoms it is usually by its running down the tear duct into the nose and throat where it is absorbed. To avoid this unpleasant result the lachrymal papillæ may be kept everted by the fingers for some minutes after dropping in the cocaine.

NOSE.—It is in intra-nasal surgery that cocaine has been of such inestimable value. The schneiderian membrane rapidly absorbs it, and complete anæsthesia both of the mucous and submucous tissues quickly results. The solution is best applied by means of a cotton mop. And in operating only those parts should be cocainized which are to be operated on, and those which will necessarily be touched by the instruments. If more area than this is anæsthetized we run greater risks of poisoning our patient. For this reason I protest against spraying a solution of cocaine into the nose. When the spray is used the solution goes equally to all parts of the nasal membrane, all of it is partially anæsthetized, but none of it perfectly so, unless we use a strong solution when toxic symptoms will almost certainly result.

In addition to mopping it on, a small pledget of cotton, wet with the solution, may be applied to the area of operation and left for five or ten minutes, when anæsthesia is usually complete. Or we may upon the moistened end of a probe place some of the cocaine crystals upon the membrane to be operated on.

Cocaine is of the greatest value in facilitating the diagnosis of intra-nasal conditions. A 1 to 2 per cent. solution brushed over the membrane reduces sensibility, and by its styptic action causes a marked shrinking of the turbinated bodies. Thus the cavity of the nasal fossa is enlarged, and more light may be admitted for ocular inspection. Instruments can now be introduced without pain, and an accuracy in diagnosis reached, which, before was impossible. Nearly all intra-nasal surgery is now done under cocaine, with no pain. And the constringing action of the cocaine upon the blood-vessels serving to diminish hemorrhage is an additional advantage.

Cocaine is also useful in diagnosing reflex neuroses of nasal origin. Here the application of cocaine to the diseased membrane is usually followed by temporary relief from the reflexes.

In stuffiness of the nose due to cold, hay fever, etc., a weak solution applied to the Schneiderian membrane relieves the

burning, smarting pain, and restores nasal breathing. But its effect is only temporary, and as there is danger of the cocaine habit being established it should be sparingly employed in such cases.

THROAT.—What has just been said of the nose applies equally to the throat. In examining irritable throats where the introduction of instruments produces gagging, retching, etc., the application of cocaine affords great relief, and enables us to use the rhinoscope, and laryngoscope, and to introduce instruments with no trouble.

When removing the tonsils it is well, in addition to mopping it on, to inject a few minims of the solution into the base of the gland along the line of the proposed incision. If the injection be followed immediately by the excision the slight hemorrhage will be sufficient to wash out the cocaine.

EAR.—When a solution of cocaine is put into the healthy external auditory canal it is not absorbed, and therefore has no effect. For this reason it has only a limited use in aural surgery. If, however, there is an opening in the drum the solution may enter the middle ear cavity. It can then be absorbed by the mucous membrane lining the middle ear, inner side of the drum and Eustachian tube, and anæsthesia results.

GENITO-URINARY ORGANS.—The usefulness of cocaine in alleviating pain and in facilitating operations upon these organs is especially to be commended. Locally upon chancroids, which are especially irritable, the hot iron or nitric acid can be used with but little pain to the patient, where otherwise he would suffer greatly. A 10 per cent. solution is to be recommended.

In operations upon the penis, as circumcision, removal of vegetations, or opening of abscesses, the subcutaneous injection of a 2 per cent. solution, ten to fifteen minims, will thoroughly anæsthetize the part to be operated upon. A constrictor should be used to prevent the entrance of the cocaine into the general circulation; and free bleeding should be allowed after the operation, with stripping of the tissues, to eliminate as much of the drug as possible.

In internal urethrotomy a 4 per cent. solution injected into the urethra will sufficiently anæsthetize this canal to allow a painless operation. After the operation no cocaine should be used for at least one week, as dangerous symptoms have fre-

quently followed its employment. In introducing sounds or catheters the use of a 4 per cent. solution will greatly relieve urethral spasms, with their consequent epithelial abrasions, which affords a fertile field for infection.

Operations for varicocele, hydrocele, and castration have been successfully performed after the subcutaneous injection of a 4 per cent. solution of muriate cocaine. It is well to be mindful of secondary hemorrhage in these cases, on account of the astringent properities of the drug.

After nitrate of silver solutions have been injected into the urethra and bladder, which usually cause pain, strangury and hemorrhage, the injection of 10 minims of a 4 per cent. solution will give immediate relief. When used in the bladder it should be immediately evacuated to prevent toxic symptoms from absorption.

In cauterizing ulcers of the rectum, ligating hemorrhoidal tumors, or operating for fistula in ano, a small quantity of a 4 per cent. solution can be used with advantage. The rectum absorbs nearly as readily as a cut urethra, so caution should be used. In operating for external hemorrhoids hypodermatic injections are necessary, as the cutaneous surface does not absorb.

The length of time necessary for the production of cocaine anæsthesia varies. When applied to a mucous surface, as the nose, the full effect is obtained in from five to ten minutes. When galvanism is used to drive the cocaine through the skin ten to fifteen minutes are necessary. But when injected into the tissues anæsthesia is developed within one minute. The degree of anæsthesia varies with the strength of the solution and the duration of the application.

The method by which cocaine produces anæsthesia is not known. The theory that it is due to an anæmia of the tissues, caused by the astringent action of the cocaine upon the blood-vessels, is clearly erroneous. Cocaine produces anæsthesia only when it mingles in solution with the interstitial fluids of the part; and then the anæsthesia is the result of the peculiar action of cocaine upon the nerve fibres, and can not be further explained.

The duration of the anæsthesia is important. It will last practically as long as the cocaine is kept confined in the tissues. Cocaine is removed from the tissues by the blood; and is either thrown off externally, as with the blood in hemorrhage, or returns with the blood to mingle with the general circulation.

It follows, then, that if a tourniquet be applied to a part, as a finger, so as to arrest circulation, and the cocaine is then injected, that the anæsthesia will last while the tourniquet is kept on. It also follows that where no tourniquet is applied the anæsthesia will last *cæteris paribus* in inverse proportion to the vascularity of the part. For this reason the anæsthesia lasts longer in non-vascular tissue, as the cornea, than it does in a vascular one, as the nasal mucous membrane.

In operating on vascular parts the hemorrhage, unless controlled, washes out the cocaine and sensibility speedily returns. It is, therefore, important to complete the operation as speedily as possible; and the more so since anæsthesia can not be reëstablished by applying more cocaine to a bleeding surface from which it is constantly washed by the blood.

Following cocaine anæsthesia the return of sensibility is often marked by a stinging, aching sensation in the part, which may in fact last for hours and cause decided suffering. I have often noticed that this afterpain is in proportion to the amount of cocaine used. For its alleviation we should not commit the error of applying more cocaine, for this would only postpone and increase the trouble.

It has been noticed that wounds made under cocaine anæsthesia often fail to unite by primary union. So frequently has this been observed that an explanation has been sought. Two causes are assigned. One is that cocaine, by its effect on the tissues, so impairs their vitality as to defeat union by "first intention." The second is that it is not the cocaine *per se*, but the septic quality of the solution used that prevents primary union. The solution itself may be septic or, if injected, the syringe may be septic, and thus the wound is infected. In a word, that it is sepsis and not cocaine that prevents primary union. That this latter explanation is the correct one I do not doubt. For, if a fresh aseptic solution be injected with a thoroughly aseptic syringe, primary union is as easily obtained as it is in the same wounds made under general anæsthesia. The syringe to be used should always be cleansed with a carbolic solution.

Toxic symptoms produced by cocaine will next be considered. These symptoms are more dependent upon the susceptibility of the individual than upon the amount of the cocaine used, or the

method of its employment. Nor are these susceptible persons confined to frail or debiliated classes. On the contrary, one as often meets with cocaine poisoning in strong, robust men as among others. Some patients are so sensitive to cocaine that the application of a few drops of a weak solution to any absorbent surface is rapidly followed by the gravest symptoms. Recently I applied to the everted eyelid of a robust young man a few drops of a cocaine solution for the incision of a chalazion, and had a marked case of poisoning within three minutes. Such cases might be multiplied.

Nor is it possible by any known means to judge of the susceptibility of a patient until the cocaine has been used. For this reason the first use of cocaine in an individual should be guarded until we are sure there is no idiosyncrasy present.

The toxic symptoms are a marked loquacity, a feeling of weakness, tingling sensation in the extremities, general nervousness, blanching of the skin, cold perspiration, rapid feeble pulse. superficial respiration, vomiting, dilated pupils, cyanosis, unconsciousness, and convulsions. Ordinarily the lighter cases rapidly recover, and leave no bad results; but the graver ones may increase and end in death by arrest of respiration.

These symptoms are best combatted by laying the patient down, giving whisky, either by the mouth or hypodermically; hypodermatic strychnine or atropine, and artificial respiration.

Last, but not least, is the cocaine habit. In many people the effect of cocaine is so pleasant, the stimulating effect, both physical and mental, is so agreeable, and the relief from certain local conditions following its use is so gratifying that the patient insists on its continued use. And when after a time the physician declines to employ it further, the patient goes, without his physician's knowledge, to the drug store and obtains and uses it himself. Thus is not unfrequently established the cocaine habit.

Those who are given to the alcoholic or opium habit seem predisposed to the cocaine habit, and in such patients cocaine should be used sparingly. As an additional precaution against this habit the patient, when practicable, should be kept in ignorance as to the drug employed, so he cannot get and use it of his own accord.

246½ N. Summer Street.

ANTI-DIPHTHERITIC AND ANTI-STREPTOCOCCIC SERUMS—THEIR NATURE, METHOD OF PRODUCTION, AND APPLICATION FOR THE RELIEF OF DISEASE.*

BY C. C. FITE, M.D., NEW YORK.

Those of us who received our medical education long enough ago to be fond of retrospection will recall the ready acceptance which was given to the germ theory of disease, by the younger and more plastic minds in the scientific world when it was promulgated. We can also recall the doubt and ridicule that was heaped on the promoters of this theory by the over-wise and the ultra-conservative element.

It was my good fortune to witness the great Lister operate, and I noticed how his spray and apparatus excited the ridicule of some of these over-wise men who stood near; men who, by the way, have been forgotten, whilst Lister's name will live forever. Listerism, Pasteurism, antisepsis, asepsis, whatever name we may give to the methods then or since used, mean, after all, the same thing, namely, fighting noxious germs, killing the microbe that is, either by its own destructive action or through poisonous secretions, destroying humanity. All we have attained to-day in serum therapy comes legitimately from the establishment of the germ theory of disease.

Acting upon the suggestion of your honored associate, and my very good friend, Dr. B. H. Detwiler, this paper will be limited to the question of the proper method of producing and using substances to either kill or neutralize the effect of disease germs. The subject is too broad for a full treatise on all the various accomplishments in this direction, and I will therefore select two that appear most interesting. I refer to anti-diphtheritic and anti-streptococcic serums. The first has been accepted

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*Read before the Lycoming County Medical Society, Williamsport, Pa., December 1, 1896.

as a part of our legitimate and definite list of remedial agents. The second is still on trial.

As to the nature of anti-diphtheritic serum, I will state that the theory is a simple one. The diphtheritic germ, the Klebs-Loeffler bacillus, finds lodgment in the throat or elsewhere. It begins to grow and multiply, a membrane is formed, a poison is secreted and absorbed. This toxine overwhelms the life centers, paralysis and death may follow. Nature has in the meantime been endeavoring to overcome the danger that is threatening the patient, and has secreted an antitoxin to destroy the toxin.

Marvelous Mother Nature gives the germ a life, but when the balance is apt to be against the culture field, the body, endeavors to neutralize the danger in her own mysterious way. This process was repeated millions of times for thousands of years, but we did not understand it, did not go deep enough into Nature's great laboratory. Finally the educational results of the germ theory had produced a long list of careful thinkers, and with that deep eye, the microscope, and by the aid of vivisection on animals, the secret was discovered, and now, all over the civilized world, are laboratories for the production of the precious fluid.

From Lister to Behring is a long step. It represents energies untold, deep thought beyond our grasp. Only a few years as time is calendared, but a stride so immense as to strike us with awe! When I first met Professor Klebs, the thought passed through my mind—Lister—Huxley—Darwin—Spencer—Koch—Behring—Klebs—guide-posts in the development of life!

I am indebted to Dr. E. M. Houghton of the Biological Laboratory of Parke, Davis & Company for the details of the method of manufacturing anti-diphtheritic serum. It is in brief as follows: First a culture medium is prepared by adding bouillon to blood serum, and then coagulating the mixture; this is known as Loeffler's blood serum. The diphtheria germs are secured by passing a sterile swab over the false membrane and the swab is then passed over the blood serum and the tube containing the now infected serum is closed with a cotton plug, and put into an incubator where it can be kept at the body temperature. After a few hours small colonies appear on the surface of the serum and the microscope is used to determine if the Klebs-

Loeffler bacillus is present and if so, if it is free from other forms of life. If it is a pure culture, small colonies are picked out and transferred to fresh serum and replaced in the incubator.

These growing germs are the seed used for producing the toxin; they are planted in sterilized beef bouillon. The germs then grow rapidly, and produce or secrete toxines which are retained in the bouillon. A small amount of a preservative is added and it is then filtered through unglazed porcelain, which removes the germs and all foreign bodies, leaving the solution clear. This solution of toxin is then injected into the jugular vein of a horse and, as Dr. Houghton puts it, "We must now stand aside and allow the remainder of the miracle to be wrought unseen."

The horse's blood now contains an antitoxin which destroys the toxin we have been putting in it. The dose is repeated until, in the course of a few months, a horse can stand without injury a dose several hundred times stronger than one that would have killed him at the beginning of the treatment. One horse is then our laboratory, but Nature has yet kept her secret as to how the antitoxin is produced. All we have to do now is to secure the blood from our patient friend, remove the clot, filter, sterilize and preserve the serum, and we have the result, a package of anti-diphtheritic serum, and we are ready to go on our life-saving errand.

I have purposely avoided any reference to the various methods and tests applied on guinea pigs and with the microscope to determine the strength of the toxins and antitoxins from time to time. The methods have been carefully worked out by those engaged actively in the work, and in this way they have been enabled to make a given number of antitoxin units a dose, irrespective of the bulk.

I consider it of the utmost importance that the serum should be as highly concentrated as possible, hermetically sealed, and only one dose in a package, and it should not be opened until we ready are to use it. By being careful about this, and using a clean syringe, avoiding the large old-style antitoxin syringe with the rubber tube, we can be confident that no harm will come from its use. My opportunities for observing the use of anti-diphtheritic serum and for conferring with eminent authorities as to

its use have been quite extensive, and I have reached the conclusion above given, and also that it is of the utmost importance to use the serum as early as possible, and in full and repeated doses.

In recent conversations with Dr. Joseph Holt, Dr. W. P. Northrup, and Dr. Joseph O'Dwyer, they have referred pointedly to the necessity of full doses. In fact, I think it is legitimate to add that the majority of those who have not been successful in their use of antitoxin have either not used it in sufficient quantity or early enough. Dr. W. A. Walker (*Pediatrics*, October 15, 1896) places great stress upon this point, as also does Dr. Douglas H. Stewart (*Annals of Gynæcology and Pediatrics*, November, 1896).

Allow me to make a brief digression here and refer to the value of using the microscope in making a diagnosis. Dr. Wm. Osler kindly showed me a case of typhoid fever in his service at the Johns Hopkins Hospital which had a small patch of false membrane on the lower lip. Microscopical examination showed the Klebs-Loeffler bacilli in abundance. Now it is often doubtless true that the real nature of cases of this kind are overlooked, and they become the foci of infection, and the patch, even though small, may spread to other surfaces later on, after having been the means of infecting probably a number of people. Then we are sure to hear the cry raised about sporadic cases!

I would also ask you not to neglect other methods of local and general treatment; sustain the patient's strength, keep the bowels open with calomel and keep the throat clean. The Loeffler solution is an admirable combination of antiseptics for local use.

I will now refer to the cases of mixed infection and will ask your attention to the articles of Dr. Stewart and Dr. Walker above referred to; also to an editorial in the *Cincinnati Lancet-Clinic* of October 15, 1896, referring to the use of anti-streptococcic serum and quoting that eminent teacher, Dr. J. Lewis Smith.

Marmorek and others have used anti-streptococcic serum in cases of diphtheria showing the streptococcus as well as the Klebs-Loeffler bacillus, also in scarlet fever, puerperal fever,

general septicemias, infective tonsilitis, erysipelas, and other diseases, whether due to, or complicated by, the appearance of the streptococcus pyogenes, and it seems as if it will prove of great value in other cases, perhaps in multiple abscesses and in broncho-pneumonia, or in fact wherever the streptococcus is found as above stated. Dr. Henry Dwight Chapin has been giving some attention to its use in the two diseases last named.

In reference to its use in diphtheria, I am firmly convinced that it is indicated in all cases where the microscope shows the streptococcus and we almost invariably find it in cases which do not yield to the anti-diptheritic serum and where we see a zone of inflammatory action extending beyond the area occupied by the true diphtheritic membrane. Therefore, if a case does not yield promptly to the anti-diphtheritic serum, we should, I believe, use the anti-streptococcic serum without waiting for the report from the bacteriologist.

The method of producing the anti-streptococcic serum is in the main a similar process to that used in the production of the anti-diphtheritic serum, or by injecting virulent cultures of the germs instead of the toxin.

I am indebted to Dr. Charles T. McClintock of Ann Arbor for advice in regard to this matter. Dr. McClintock writes as follows: "As regards the difference in methods for producing anti-diphtheritic and anti-streptococcic serum, I may say in general that the streptococcus, like a number of other germs, does not readily give off its toxin to the surrounding liquid. If you want to get the toxic properties of the germ, you must take its own protoplasm. On this account we are compelled to use the germs themselves, in order to successfully immunize an animal. The filtered toxins are not very powerful. This is the essential difference between the two materials. In the case of the streptococcus we use a living virulent germ in buillon culture."

I submitted the same question to Dr. Dillon Brown, of New York, and he replied as follows: "To test the value of a strep tococcus antitoxin we must not use the toxin; but the culture itself. The point is that in streptococcus infection, the germ itself finds its way into the blood and viscera, while in Klebs-Loefler infection, the bacillus is rarely found in the viscera on autopsy. In one case, you have a toxin only to fight, and in the other, you have both the germ and its toxin."

There has been a great deal of good work done quite recently in this investigation of the anti-streptococcic serum and I feel confident that we are near a solution of the problem. The New York Board of Health is having it carefully studied in the Willard Parker Hospital and the great reputation and well-known ability of the scientific corps of this board and of the gentlemen composing the staff of the hospital is a sufficient guarantee that the work will be well done. The profession of this country owes much to Drs. Biggs, Park and Prudden.

In conclusion, allow me to say that the great lesson we may learn from the history of serum therapy, bearing upon scientific advancement, is that we should keep our minds open to receive testimony and look forward, not backward. We are at the beginning only of a great era in medicine. Medicine is partly a science, partly an art. The laboratory worker and the student are the scientific producers of the colors which the practioner, the artist, puts on the canvas. If we work together, the one investigating and using, we make more rapid strides, get quicker results, and mutual confidence produces mutual good-will and a cheerful exchange of ideas of advantage to all.—*Maryland Med. Journal.*

CLINICAL DEMONSTRATION OF THE FLUOROSCOPE AND "X" RAYS.

REPORTED BY T. I. PEGRAM, OF NASHVILLE, TENN.,
Medical Student at Vanderbilt University.

Prof. John Daniel, of the Literary Department of Vanderbilt University, entertained the members of the Senior Class of the Medical Department of the University Tuesday, January 18, with a practical exhibition of the workings of the X or Roentgen rays.

There were also present Drs. Duncan Eve, W. L. Dudley, E. B. Sangree, J. R. Buist, J. H. Witherspoon, and Paul F. Eve.

Professor Daniel, by way of an introductory to his experiments, explained fully and clearly the relative properties of

radiation, explaining in detail the luminous, heating, and chemical effects of light. He gave several exhibitions of the phenomena produced by rays of light in various kinds of tubes and the effect of light upon different substances. He then took up and demonstrated in a very practical manner the workings of the Crookes tube.

Dr. Duncan Eve had on hand for the experimental part of the lecture three subjects. The first was a colored boy who had imbedded in his hand a small Flobert rifle ball. When the hand was exposed to the rays, the bullet was plainly discernible lying between the metacarpal bones, so clear and plain that it almost seemed that you could pick it up with the fingers.

The next experiment was one of exceeding interest. It was a non-united fracture of the humerus. The humerus had been fractured near the shoulder joint. The fracture occurred eighteen months ago, and the bone refused to unite in the ordinary way. Dr. Eve had tried binding the bone together with silver wire. He bored holes in each end of the fractured bone and bound them together with the wire, hoping that they would be forced to unite, but this failed. Dr. Eve was anxious to understand why this had been a failure, and so he was glad of an opportunity to examine the fracture before proceeding further with it. When the man's fractured arm was submitted to the rays under Professor Daniel's manipulation the fracture could be seen as plain as if all the flesh had been removed and the bone exposed. The silver wire was plainly visible and the trouble was made apparent. It was seen that one end of the wire had cut through the bone and was loose.

Professor Eve stated that he would make another effort to secure union in this case, and would avail himself of a suggestion made to him by Dr. J. Y. Crawford, Professor of Dental Surgery in the University of Tennessee. He would expose the ends of the bone, and would use pegs or staples of *iridium* and secure the ends with wire extending from the inserted iridium. He is confident that in this way the ends can be securely held together firmly, and the arm rendered useful whether bony union occurs or not.

The next case was a boy with a complete fracture of the radius and ulna near the wrist joint, which had been adjusted

and placed in splints two days previously. He was anxious to know if there was perfect adjustment of the fragments, so essential in fractures here especially. When the boy was brought before the class, Professor Eve commenced to remove the splints and dressings, but Professor Daniel told him that this was unnecessary. Through all these bandages and splints the rays penetrated and exposed to view the bones and the line of fracture in both. The line of fracture was detected readily by those present as clearly and plainly as though the bones were cleared from the muscles, tendons, ligaments, etc., the position of the fragments and their complete readjustment being quite apparent.

Professor Daniel has given the theory of radiation considerable study and thought, and his experiments were highly satisfactory and entertaining, and he was complimented on his success.

Selections.

TREATMENT OF CARBUNCLES.—On Thursday afternoon Mr. L—— came to my office suffering with a carbuncle on his neck, which he said had beeu coming for three days and that he "waited for it to get ripe" before consulting me. Having suffered from this worst of all furunculous tumors, he was not a little anxious and somewhat depressed, as he had an important business trip arranged for the next week and he was especially anxious for a speedy recovery. On removing the dressings from his neck I found an induration about two inches in diameter covered with pus. On cleaning it off there were brought to view six pustules in a space about three-quarters of an inch in diameter; these pustules were oozing a thick pus, and I was satisfied that my patient was in for a siege with one or more carbuncles, as there were a number of other pustules on his neck, which looked bad, to say the least.

Taking a knife, I made a free incision across the top of the carbuncle; after evacuating as well as I could I washed it out with a solution of carbolic acid, about three to five per cent. After this, with a pair of dressing forceps, I removed all the

broken-down tissue I could, a plan which I have found to be of great service in many cases of carbuncles, as thereby whole colonies of micro-organisms are taken out that otherwise would increase and multiply until thrown off by suppuration. Having cleansed the wound thoroughly, I packed it with dry Protonuclein Special; after which I applied a poultice of flaxseed-meal, on which was a teaspoonful of fluid extract of eucalyptus globulus.

As a tonic, I ordered:

℞ Elix. Ferri. Quiniæ, et Strych. Phosphat., ℥ jv
Sig. A teaspoonful three times a day.

The local treatment was repeated for two days, when the poultice was left off and instead this ointment was used:

℞	Sebi ovis } aa	℥ ij
	Ol. oliv. }	
	Ceræ flava	℥ ss
	Zinc. oxid	℥ iij
	Ext. Eucalypt. glob	℥ j
	Acid Carbolic	grs. c

M. Fiat. unguent. Sig. Grant's Comp. Zinc Ointment.

I continued to wash the wound with the dilute carbolic acid and pack it with the Protonuclein Special; this dressing was renewed twice daily. So rapid was the recovery that on the following Monday evening the wound was healed and the induration was almost entirely gone, and I dismissed the case with directions that he keep a dressing of the ointment on the seat of the carbuncle for several days to protect the tender skin.

In an extensive and moderately successful experience—both personal and professional—with carbuncles, I have never seen a more threatening outlook for a serious carbuncle, nor one so quickly and satisfactorily cut short as in this case; and I am of the opinion that the results in this case are far ahead of the old-fashioned treatment of poultices alone or the more modern injection of methyl violet, or the treatment much extolled of late, of total extirpation and curetting, which leaves a great gaping wound to be filled up by granulations and skin-grafts or to become an open ulcer followed by ugly scars. I am free to say that I am convinced that the success in this case is largely due to the use of Protonuclein Special, as with the same general line of treatment, which has been the very best I could find, I was never able to cure a carbuncle under two weeks, whereas in this case

it was cured as quickly as a simple wound would have been. —*Thos. Page Grant, M.D., of Louisville, Ky., in International Journal of Surgery.*

NOTES ON THE TREATMENT OF FÆCAL FISTULÆ, abstracted from the *Medical Record* of October 24th, 1896.—At the thirteenth annual meeting of the New York State Medical Association, which was recently held in New York City, Dr. Frederick Holme Wiggin, of New York county, presented a paper with the above title. The chief cause of the occurrence of fæcal fistula was stated to be the delay in resorting to operative measures to which patients suffering from typhlœnteritis, or strangulated hernia were frequently subjected while their ailment was carefully diagnosticated. The view recently advanced by a writer on the subject under consideration, that the best treatment for this condition consisted in its prevention, was concurred in. But in the case in which this mishap had occurred, it was pointed out that if the opening was of small size, was located near or below the ileo-cæcal valve and no obstruction to the fæcal current existed, operative measures might be deferred, as in most instances the opening would close in a short time spontaneously. On the other hand, if the bowel opening was of large size, was situated laterally, or some distance above the ileo-cæcal valve, and was accompanied by the escape of a large proportion of the contents of the bowel, operative procedure for the closure of the opening should be speedily undertaken.

The histories of three cases, successfully treated by surgical measures were cited.

In two instances, the patients were inmates of the Hartford (Connecticut) Hospital, and were operated upon by Dr. Wiggin, by reason of an invitation which was extended to him by the medical board of that institution, after several previous unsuccessful efforts to close the bowel openings had been made. The occurrence of the fistulous opening was due in the first case to failure, and in the second case, to delay in resorting to surgical treatment of typhlenteritis, from which disease both patients originally suffered. In the third case, the bowel opening was caused either by the pressure of the gauze used to drain the

abscess cavity, or by an ulcerative process which originated from within the gut. In the first case, as the opening in the bowel was of large size, irregular in shape, and the gut was thickened and friable, the diseased portion of bowel containing the opening, about four inches in length, was excised, and the divided ends joined by the suture method of Maunsell. In the second and third cases, the bowel openings were situated in the head of the colon, and were in both instances closed by means of several rows of sutures, after which the omentum was drawn over the former site of the fistula, and retained in position by sutures.

In describing the technic employed, the writer laid much stress upon the following points, viz: the thorough disinfection of the parts, including the interior of the bowel, with hydrozone, the closing of the intestinal opening, when possible, before the breaking up of the peritoneal adhesions, and the opening of the general cavity, the removal of any existing obstruction to the fæcal current, the disinfection of the bowel surface with a solution of hydrozone, before and after the placing of the sutures, the control of oozing from the cicatricial tissue by the same means and the closure by a single row of silk worm-gut sutures without drainage of the abdominal wound after the washing of the peritoneal cavity with saline solution, some of which is allowed to remain.

In concluding, the writer stated that ever since September, 1893, when he had proved the value of hydrogen dioxide as an effective antiseptic, which, in proper solution, did not unduly irritate the peritoneum, when followed by a six-tenths per cent. saline solution, he had had little reason to fear the danger of causing septic peritonitis from the accidental escape of pus or fæcal matter while operating; and that when this complication had occurred, it had been invariably successfully met by the use of hydrogen dioxide in the manner described in the paper. He advised the excision of the diseased portion of the gut in those instances where it had become much thickened and friable, and expressed the belief that with a clearer understanding of the objects to be attained by operation—*i. e.* the restoration of the integrity of the intestinal canal, as well as the closure of the opening in the bowel—future operations for the cure of fæcal fistula would more frequently result successfully than they had in the past.

The paper was discussed at some length by Dr. H. O. Marcy, of Boston, and Dr. Joseph D. Bryant, of New York county, who commended it, and in the main, they endorsed the writer's views.

VEGETARIANISM—ITS EFFECT UPON NATIONS.—In a recent communication to the Société d'Ethnographie, in Paris, M. Verrier treated of vegetarianism from the point of view of its moral and intellectual effect upon the nations who, either from choice or necessity, are to be classed as abstainers from animal food. While fully recognizing the dangers of a too abundant meat diet, as well as the advantages of purely vegetable nourishment, the speaker nevertheless felt constrained to come to the conclusion that nature intended man to be carnivorous. The physical constitution of the human race is so ordered that to insure the development of their higher qualities its members are of necessity compelled to become to a certain extent meat eaters. The attributes that make for dominion and progress are but imperfectly present among the eschewers of animal food, and hence vegetarianism causes the downfall of dynasties and leads to the enslavement of peoples. If, continued M. Verrier, the Hindoos, instead of following an absolutely vegetable regimen, had made use of meat in a rational manner, perhaps the British might not have found their subjugation such an easy matter. His argument was equally applicable to the Irish, who lived exclusively upon potatoes. As for the Japanese, with whom rice was formerly the staple food, the energetic nature of this people could not be cited in subversion of the rule laid down in his thesis. The reawakening of the conquerors at Port Arthur and the Yalu River was coincident with the establishment of a trade in butcher's meat throughout their archipelago.—*Lancet.*

COUNTING BLOOD CORPUSCLES.— Dr. Judson Daland, of Philadelphia, has invented an instrument for counting blood corpuscles, according to the *Physician and Surgeon.* It works on the centrifugal force principle, and accomplishes the measurement by means of comparative bulks. A quantity of blood is placed in a finely graduated tube and the latter revolved

at a speed of about 1,000 revolutions a minute. The corpuscles divide by force of gravity, and form on the side of the tube in easy traceable divisions of red corpuscles, white corpuscles, and serum. The new method permits of larger, and consequently more representative quantitatives being used in experimenting, besides doing away with actual microscopic counting.—*N. Y. Medical Times.*

A NEW SUTURE MATERIAL.—Dr. L. Arangina (*La Clinica Chirurgica*, August, 1895) has prepared sutures and ligatures from the parietal peritoneum of cattle or horses. This is dissected off, cut into strips of various widths, twisted into cords, and dried for two to four days. The strands thus obtained are freed from fat by soaking in ether and are made sterile by soaking in a 2 per cent. solution of corrosive sublimate in alcohol. They are preserved in a weaker solution of the same character. He claims that these sutures are easily prepared, are strong, are absorbed without difficulty, and are easily sterilized. They are certainly less liable to contain bacteria or other micro-organisms than the sub-mucous layer of the intestine, which is the common material used for "catgut." Arangina also sterilized his material by placing it in oil of juniper for ten minutes, heated to boiling and preserved it in absolute alcohol.—*Boston Med. and Surg. Jour.*

ACUTE FOLLICULAR TONSILLITIS.—This disease so closely resembles diphtheria that in many cases it is difficult to differentiate between them in diagnosis, which is all the more difficult because of its prevalence in the same vicinity with diphtheria. Sustaining treatment, salicylate of soda, and wash for the throat of boracic acid in solution, or Listerine, which is very agreeable to the patient. The disease is not often fatal, but is no doubt contagious, for which reason the patient should be isolated from other persons.—*Cincinnati Lancet-Clinic.*

THE TREATMENT OF PHLEBITIS.—The particular indications in the treatment of this condition are, first, to relieve the pain, which as an initial symptom is often severe; second, to pre-

vent as far as possible embolic accidents which will gravely complicate the case; third, to give absolute rest to the part affected as long as the phlebitis lasts. Pain and swelling usually appear about the same time, and in the leg, where the trouble most commonly arises, it will frequently be found that the obstruction exists in the hypogastric or in the common iliac vein. At first, care should be taken that the swelling be not due to a rheumatism or a neuralgia, as the paroxysmal character is apt to be misleading. For the amelioration of the pain it is best to wrap the part in a soft dressing surrounded by a gum cloth and to have the limb somewhat raised in order to facilitate the return of blood from it to the trunk. Any compression will make the pain much worse. In some instances large poultices composed of linseed meal, if applied to the limb, do good. In other instances the following prescriptions may be used as applications to the parts affected:

Extract Belladonna.....30 grn.
Extract Hyoscyamus.....30 grn.
Benzoinated Lard..... 1 oz.

Or:

Chloroform .....2 fl. dr.
Camphor Liniment .....2 fl. dr.
Glycerin.....2 fl. dr.

Or:

Ichthyol .....15 grn.
Lanolin ..... 1 oz.

If the pain is very much localized, the application of an ice-bag to the part may give relief, but it should be remembered that this application in the dressings of a poultice may favor the development of cutaneous gangrene.

Hypodermic injections of morphine are not to be resorted to if they can be avoided, as such patients are generally feeble.

The prophylactic treatment of this condition consists in absolute repose. Should the functional loss of power persist in the limb, a tight flannel binder should be applied about it. Massage in moderation should be employed, and faradization should be applied to the muscles. A visit to thermal springs is also of value in these cases during convalescence.—*Therapeutic Gazette.*

THE IDEAL STERILIZATION OF CATGUT consists in rendering the material not only absolutely sterile but also mildly antiseptic without impairing its strength. Ever surgeon has been anxiously looking for a method by which catgut could be prepared so that it could be sterilized by boiling without impairing its strength. Fortunately this hope has at last been realized. Experiments have shown that catgut and leather immersed for forty-eight hours in a 2 to 4 per cent. solution of formalin undergo an unknown chemic change which alters their texture in such a way that its tensile strength is not impaired but rather increased by boiling. The commercial catgut is subjected to the action of the formalin without any previous preparatory treatment of the raw material.

Hofmeister, who has done such excellent service in perfecting the formalin preparation of catgut, gives the following most recent method:

1. The catgut is wound on a glass plate with slightly projecting edges, so that the gut is free from the sides of the plate and exposed to the circulation of the boiling and flowing water. The ends of the gut are fastened through holes in the plate.

2. Immersion twelve to forty-eight hours in aqueous solution of formalin 2 to 4 per cent.

3. Immersion in flowing water at least twelve hours to free the gut from the formalin.

4. Boiling in water from ten to thirty minutes is amply sufficient, as all microbes and spores are killed by exposure to boiling heat for that length of time.

5. Hardening and preservation in absolute alcohol containing 5 per cent. of glycerin and one-tenth of one per cent. of corrosive sublimate.

Experiments on animals with catgut thus prepared have proved that it is absorbable, though not as quickly as the ordinary material. One of the essential conditions of success in this method of catgut sterilization is to wind the gut quite tightly around the glass plate or hollow glass cylinder during the progress of sterilization.

The first attempts to sterilize catgut by this method under my own direction were made at the St. Joseph's Hospital by the sister in charge of the operating room. The result of the ex-

perience has led us to modify the procedure in several ways. Instead of glass plates ordinary abdominal glass drainage tubes have been employed, upon which the gut is wound quite tightly. These glass drains have been found an excellent substitute for the plates. An ordinary large test tube would answer the same purpose. The remaining directions given by Hofmeister were followed to the letter.

Numerous inoculations with fragments of catgut prepared by this method in sterile gelatin invariably gave negative results. The catgut is as strong as the raw material, hard, and the knot is less liable to slip than when the ordinary material is used. We have also ascertained that the formalin catgut may be reboiled almost any number of times without impairing its strength. Catgut to be safe should not only be absolutely sterile but should contain a sufficient quantity of efficient antiseptic to render it unfit as a culture medium for pathogenic microbes. Hofmeister renders it antiseptic by immersing it in an alcoholic solution of corrosive sublimate. Others have substituted carbolic acid for sublimate. Both of these antiseptics unduly irritate the tissues and increase the primary wound secretion, effects which can not fail in interfering to a certain extent with an ideal healing of a wound by primary intention. The experiments made recently by Lauenstein leave no doubt that it is almost next to impossible to render the field of operation absolutely aseptic by any of our methods of disinfection. We are forced to admit that nearly every wound inflicted by the surgeon's knife contains microbes notwithstanding that the strictest aseptic precautions may have been carried out, The experiments made by Ewald have also furnished positive proof that sterile catgut often contains a sufficient quantity of an unknown toxic substance which by its destructive action upon the cells engaged in the reparative process transforms them into pus corpusceles, resulting in the production of a limited aseptic suppuration and the formation of sterile pus. Undoubtedly many of the stitch abscesses which occur in the practice of painstaking aseptic surgeons have such an origin. These experimental researches force upon us the conclusion that catgut should not only be sterilized but that it must be made sufficiently antiseptic to at least inhibit the growth if not destroy the pyogenic microbes which enter the wound during the opera-

tion or which may reach it later through the circulation. In this part of the preparation of catgut I have modified Hofmeister's method by substituting for the corrosive sublimate iodoform. After boiling the deformalinized catgut for twelve to fifteen minutes it is cut into pieces of desirable length, tied into small bundles containing from six to twelve threads, when it is immersed and kept ready for use in the following mixture:

Absolute alcohol 950, glycerin 50, iodoform (finely pulverized) 100. The alcohol dissolves part of the iodoform. The bottle containing the catgut should be closed with a well-fitting glass cork and should be well shaken every few days to bring the disolved iodoform in contact with the threads. The catgut can be kept in this mixture for any length of time without losing its strength. One of the valuable properties of iodoform applied to a recent wound is to diminish the amount of primary wound secretion. It does not destroy pus microbes but inhibits their growth. I have used catgut prepared by these modifications of Hofmeister's method with the most satisfactory results and shall continue to use it until some better method is devised.

In conclusion I would advise hospital authorities and surgeons to prepare their own catgut by this or similar processes and not rely upon manufacturers for their supply.—*Prof. N. Senn, M.D., in Med. Mirror.*

Opium and Cocaine in Cancer.—Dr. Herbert Snow has found good results to accrue from the combined use of these drugs in the treatment of the more chronic malignant form of disease, and in cases where recurrence was probable. The growth of the tumor is retarded and some improvement even may take place. The cocaine also exercises an anæsthetic effect. Morphine may be given, beginning with ¾ grain or 1 grain three times a day, cocaine may be added, in ½ to 1-grain doses once or twice a day.—*Med. Times and Gazette.*

Sander & Sons' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

A SIMPLE METHOD OF DISTINGUISHING DIABETIC FROM NON-DIABETIC BLOOD.—The author (R. T. Williamson, M.D., Lond., Medical Registrar, Manchester Royal Infirmary) describes a simple method of distinguishing diabetic from non-diabetic blood. He has found that diabetic blood is much more powerful than non-diabetic blood in removing the blue color from a solution of methyl blue. The reaction is so sensitive that the difference can be detected by the examination of a drop of blood obtained by pricking the finger. When *certain proportions* of blood and a warm alkaline solution of methyl blue are mixed together, the blue color is removed in the case of diabetic blood, but remains when non-diabetic blood is used. The following is the exact method employed:

Into a narrow test-tube are placed 40 cubic millimeters of water (the capillary tube of a Gower's hæmoglobinometer, which is marked for 20 cmm., may be used for measuring the fluid), 20 cubic millimetres of blood are added, and then 1 cubic centimer of a 1 in 6,000 watery solution of methyl blue, and afterwards 40 cubic millimeters of liquor potassæ. The tube is then placed in a capsule or vessel containing water, which is kept boiling. At the end of four minutes the blue color disappears and the fluid becomes yellow if diabetic blood has been used, but in the case of non-diabetic blood the blue color remains.

In over thirty examinations of diabetic blood (from five cases of diabetes mellitus), the methyl blue solution was always decolorized; whilst normal blood and the blood from one hundred patients suffering from the most varied diseases never decolorized methyl blue when mixed in the above proportions. Hence, by this simple method, a drop of blood from a well-marked case of diabetes mellitus may be readily distinguished from non-diabetic blood.—*Medical Press.*

SUBSTITUTION.—Aside from the question of fair dealing between man and man, of ordinary justice in trade, and common honor in protecting the consumer, this outrageous practice of substitution not only tends to distrust of the one in whom every confidence should be placed, but is a direct menace to the skill

of the physician and the faith we have in well-tried drugs. Further than this, the very life of the patient may hang upon the culpable waste of time that a substitution may entail or the sustitution may eventually cheat the innocent sufferer of the only chance of ultimate recovery.

Thus the physician becomes more than interested in the exposure of such nefarious practices. Every respectable pharmacist in any community owes it to himself by word and deed to to frown on the culprits and to lend his efforts in exposing their fraudulent proceedings. When the latter have been discovered no pains should be spared to make the facts known, either by disciplinary action on the part of boards of pharmacy or by suits at law. The advice to patronize only such as are known to be honest is perfectly sound. In the end we must narrow ourselves to this. There is nothing to prevent every physician who wishes to claim his rights in the premises from advising his patients to patronize such pharmacists as he has good reasons for believing are above the nsual temptations of fraudulent dealings. There are plenty such and these only should be encouraged. When a substitutor is discovered he should be blacklisted once and for all. His very act, being deliberate, cold-blooded, and inexcusably dishonest, places him beyond the pale of possible repentance. He is the spotted leopard who can not live without his skin.—*N. Y. Medical Record.*

SYPHILIS FROM AN INSURANCE POINT OF VIEW.—Dr. P. A. Maclaren, of Edingburgh, in considering this subject without reference to general mortality statistics, from which it is difficult to obtain accurate information, states that he is inclined to classify for insurance purposes all syphilitics under the three following groups: 1. If a man has been properly treated, the probabilities are that, provided he is of good constitution and habits, no complications will arise, and the expectation would be that he will go through life with scarcely more appreciable risk than one who has never had the disease. 2. If proposer has not undergone a sufficient course of treatment, and applies for insurance before the expiration of six years, the period at which the disease normally terminates, and yet is not suffering

from any tertiary manifestations, and is otherwise satisfactory, chances are that he may escape the malign form, but ten per cent. extra should be charged until the expiration of the six years, and the case is then reconsidered. 3. When tertiary symptoms have developed, the proposal should be absolutely declined, because, while treatment may temporarily remove these, it can not eradicate the tendency to recurrence; and clinical observation has shown that those so affected rarely live beyond a term of ten years, and often much less when palliative treatment is not carried out. While his personal experience is almost absolutely favorable regarding the prognosis of the cases included in Class 1, it is questionable when the cases are looked at, with interests of the offices perfectly safeguarded, if they should not practically be treated in the same way as those in Class 2.—*Edin. Med. Journal.*

FORMALDEHYD is at present the most popular antiseptic and disinfectant. It is usually found in the market as a forty per cent. solution. Eight to ten per cent. destroys the spores of microörganisms in ten minutes. A one per cent. solution destroys cultures within an hour, and disinfects and renders feces odorless. A three per cent. solution will remove all infection from the hands, and one part in ten thousand prevents the growth of pathogenic microörganisms. Our German, English, French, Spanish, and American exchanges are sounding its praises.—*Am. Medico-Surgical Bulletin.*

MAILED FREE TO PHYSICIANS: A reprint of how I treat respiratory diseases with antiseptics, viz.: Catarrh, La Grippe, Asthma, Throat, Bronchial and Lung Diseases. The medicines can be carried to parts affected. Over 800 patients treated and ninety per cent. successful. Address, R. C. COTTRINGHAM, M.D., 513 Reade St., Moberly, Mo.

NEW ORLEANS POLYCLINIC.—The tenth regular session of the New Orleans Polyclinic will begin on January 11, 1897, to continue for three terms of six weeks each, ending May 15, 1897. Vast facilities for practical post-graduate teaching at the great Charity Hospital, at the Eye, Ear, Nose and Throat Hospital, and at the special clinics in the Polyclinic's new building. For announcement or further information, address New Orleans Polyclinic, P. O. Box 797, New Orleans, La.

A NEW METHOD OF WOUND TREATMENT.—Some time ago we called attention to the fact that Dr. C. L. Schleich, of Berlin, to whom surgery is indebted for a number of ingenous discoveries—notably infiltration ansæsthesia—had introduced a new antiseptic dressing for wounds which promised to be a valuable acquisition to the resources of the surgeon. Glutol, as the new compound has since been called, is a whitish, granular powder, odorless, non-irritating and non-toxic, which is found by dissolving gelatine in water and drying the solution in the vapors of formaline. The advantages claimed for it were that when applied to the surface of a wound the gelatine is slowly absorbed with the continuous liberation of small amount of formaline—a powerful, yet inocuous antiseptic, Despite the short time that has elapsed sinee the introduction of glutol, it has been submitted to extensive experimentation, and the high claims of its value made by Schleich have been fully corroborated. From the numerous reports that have appeared on the new antiseptic we select that of Dr. H. F. Hoyt, Chief Surgeon, G. N. and C. B. and N. Railways, as well illustrating its utility in general surgical practice. It is his custom to employ it as follows:

After sterilizing with either bichloride, boric acid, permanganate of potash, peroxide of hydrogen, as the contingency of the case may require, he irrigated the wound with sterilized water, drying the surface with sterilized gauze. He then applies glutol in the same manner that iodoform is used, covering the wound with sterile gauze, cotton and bandage. For the treatment of any variety of an uninfected wound, this method, in Dr. Hoyt's opinion, comes nearer being an ideal than any other he has employed. Under its influence septic wounds rapidly become uninfected.

The author has been particularly pleased with glutol in cases of extensive laceration of the tissues of the fingers sustained by brake or switchmen, and often complicated by fracture of the phalanges. After cleansing the wound, reducing the fracture, and inserting a stitch if necessary, he applies glutol, gauze, cotton and bandage, and extends the hand on a splint. In a week or ten days, if the wound is uninfected, on removal of the dressing there will be no pain or inflammation. The scab that has formed is so firm that no splint is further required, and

after the second dressing of a non-infected wound nothing need be done than to protect the injured member with a clean roller bandage until recovery is complete. In conclusion, Dr. Hoyt states that glutol is inexpensive in view of the small quantity required and that its application is entirely painless.—*Charlotte Medical Journal.*

THE INDICATIONS FOR THE USE OF THE OBSTETRICAL FORCEPS AND HOW TO USE THEM.—Prof. T. G. Thomas, of New York, in his lectures on obstetrics, summed up the indications for the use of the forceps as follows, viz.:

1st. To supply force.
2d. To overcome obstruction.
3d. To hasten delivery.
4th. To alter position of the head.

These indications cover the whole field for the use of the forceps. The first indication is called for nine times out of ten in powerless labor. The pelvis and passages normal, and the fœtus normal, simply additional force required to accomplish the delivery.

In the second indication there is obstruction in the pelvis, or the passages, or in the fœtus. The "pains" may be normal and energetic enough to deliver the fœtus, if there was no obstruction.

The third indication is called for chiefly in convulsions and hemorrhages.

The fourth is a faulty position of the head of the fœtus; and also where there is a contracted antero-posterior diameter where the head does not enter the pelvis on account of it, but where there is plenty of room in the oblique diameter and a sufficiently roomy outlet.

To use the forceps with the greatest safety to mother and child we must imitate nature. Anæsthetize your patient, apply your forceps and then remove the chloroform until a "pain" comes on, then give chloroform again and make traction with the pain for from one to two minutes and then let up entirely so as to take all pressure off of the child's head, and wait until the next "pain" comes on, which you can always tell even if the

woman is sleeping, by seeing the handle of the forceps move when the "pain" comes on, and she will rouse up then.

Always give the chloroform during the traction, and only at that time. This is a rule with us, although circumstances might occur which might cause us to act otherwise. By making traction during a "pain," and giving chloroform at the same time, and then a period of rest, you give time for the parts to dilate, and are not apt to have any rupture. When the head has been brought down low enough to reach the forehead with two fingers in the rectum, we remove the forceps, and with two fingers in the rectum, lift the head towards the symphisis pubis until we put the perineum on the stretch, until it seems as if it could not stretch any more without a tear. Then we let up for a few moments and then continue in the same way until it is delivered.

When the head of the child is at the inferior strait of the pelvis, we are not in the habit of moving the woman from the position she is occupying in the bed, because the traction is made in the axis of the outlet of the pelvis and there is no necessity for moving her. Of course if you apply the forceps at the superior strait of the pelvis, then you will have to put her across the bed and bring her hips well to the edge of the bed, in order to make your traction in the axis of the superior strait.

We are in the habit of applying the left hand blade first. Sometimes there is some difficulty in locking the blades. When that is the case, the blade first introduced, push the handle back towards the coccyx or sacrum and you will find it will go higher up into the uterus. Do the same thing with the other blade and you will find they then lock with ease.

If we were asked how the most harm was done with the forceps, we would state without hesitation that it was due to continuous traction after their application, and next to that, traction in the wrong direction.

We are unalterably opposed to letting women suffer unnecessarily, because their ancestors did so. Hours of agonizing pain can be saved the woman in "labor" when she is in the hands of a skilled obstetrician.

The forceps, when properly used, are the greatest blessing ever bestowed on the parturient woman.—*Charlotte Med. Journal.*

TREATMENT OF ALOPECIA AREATA.—Dr. Brocq recommends the following prescriptions: Resorcin, 1½ grains (09); hydrochlorate of quinin, 3 grains (.18); and pure vaselin, 1 ounce (32). This is to be applied to that part of the scalp from which hair is falling, but only a limited area is to be covered at one application. If the hair still falls off, from 15 to 20 minims of tincture of cantharides may be added, or in other cases sulphur may be introduced into the ointment as: Resorcin, 3 grains (.18); hydrochlorate of quinin, 5 grains (.30); precipitated sulphur, 30 grains (1.80); and pure vaselin, 1 ounce (32). If these ointments produce too much irritation of the scalp, after their removal a simple ointment consisting of 20 grains (1.20) of borax to 100 (6) of vaselin may be used. If the loss of hair be associated with seborrheic eczema it is often well to apply a mercurial ointment.—*London Lancet*, Aug. 22.

PERMANGANATE OF POTASSIUM AS AN ANTITODE TO MORPHIA.—Permanganate of potassium was first recommended by Barker Smith in 1877 as an antitode to morphia, experiments having shown that when taken after a large dose of either morphia or opium it may entirely neutralize the effect of these drugs, and it is also an efficient antidote against any vegetable poisons. Numerous cases have been reported in which morphia poisoning in children had been successfully treated by internal or hypodermic administration of permanganate of potassium. In a recent number of the *Klinische Wochenschrift* Dr. Vaucetic has published the case of a child aged 3 years, who accidentally had taken about thirty drops of tincture of opium, and showed typical symptoms, viz., somnolence, cyanosis, contracted pupil and slow pulse. A 1 per cent solution of permanganate of potassium was prescribed, and in the first place was injected with a Pravaz syringe into the right hypochondrium, in addition to which the child was given some teaspoonfuls of the solution. After some hours the toxic symptoms disappeared and the child eventually recovered, although it remained anemic and showed some mental impairment. If it be considered that children up to the 5th year of age are extremely susceptible to morphia and opium, that those under four months sometimes show signs of

poisoning after from two to four drops of laudanum, and that the legitimate dose of laudanum for children of from 2 to 4 years of age amounts to three and a half drops a day, it is clear that in the above case the recovery was due to the premanganate of potassium. The way in which the permanganate acts has not yet cleared up, but experiments have shown that in a mixture of solutions of morphia and of permanganate of potassium the characteristic reactions of morphia are not obtainable. Only one case of poisoning with permanganate of potassium has been described; in this case, after a dose of about four ounces death occurred from paralysis of the heart. In these cases death occurred from paralysis of the heart. In these cases Dr. Vucetic proposed morphia as an antidote. In morphia poisoning permanganate of potassium may be administered first hypodermically and then internally.—*London Lancet*, Oct. 31.

Editorial.

OUR CENTENNIAL.

Only three months now intervene before the opening of the grand Centennial Exposition of the State of Tennessee. The beautiful, bright, open weather throughout near the entire month of January has enabled the numerous operatives in various parts of the large area to make material progress. Applications for space have been pouring in from all quarters, and a marked interest is manifested throughout numerous sections of the United States, and other countries that show indubitably the six months succeeding May 1st, prox. will find a horde of pilgrims from every quarter of the globe wending their way by means of the various lines of communication towards the Capital City of the Volunteer State.

For the benefit of our readers especially we will state that the committees of the various sections of the Department of Sanitation, Medicine and Hygiene are all actively at work and report material progress along all lines. The Directory have decided to erect a separate and special building for this Department, with an area of 10,000 square feet. In addition, the United States Government Building will contain many important and most interesting features from the U. S. Navy and Army Medical Departments, and Sanitary Science.

The State Legislature now in session has a bill before it that there is every reason to believe will be passed, appropriating $100,000 in behalf of

the grand enterprise. The members of the Legislature in a body have visited the grounds, and all are well pleased with the magnificent progress so far attained. The Centennial Committee now have the bill before them and will report favorably. At a meeting of this Committee on the evening of January 22d, the President of the Centennial Organization, Maj. J. W. Thomas, made the following remarks, which we take pleasure in submitting in part:

"Gentlemen: I will not attempt to make a speech, but will leave that for the distinguished gentlemen who will follow me. I shall only trespass upon your time in making a brief statement.

"As is known to some of you, I was born and reared in Tennessee; and, with the exception of three eventful years in the sixties, have lived in the State all my life. For three generations my ancestors have been Tennesseans. When a child, I have often heard my grandfather and grandmother tell of the hardships and dangers that were endured in making the first settlements in Davidson County; how she sat on the log heap with a rifle in her lap watching for the Indians while my grandfather tilled the soil. One Sunday my grandfather took me to the Hermitage, and I heard 'Old Hickory' tell of New Orleans. I looked on the old man with more admiration and awe than I would now look on all the crowned heads of Europe. I have seen Tennessee troops leave for Mexico; heard Bob Foster tell his men they would have no need for tight-fitting boots, but wanted broad bottom shoes, for they would have to tramp over the hills of Mexico. Have seen these troops return with thinned ranks, and their banners riddled with bullets, having by their valor added new lustre to the glorious record of the old Volunteer State. I have heard Jones and Polk, Maynard and Heiskel, Henry, Gentry and Johnson tell of the greatness and grandeur of Tennessee, and the nobility of her people.

"Having had such experiences, it was but natural when the presidency of the Tennessee Centennial was tendered me, that I should accept the position, which, however, I did with the stipulation that there should be no salary; for no moneyed consideration could induce me to assume so grave a responsibility, aud nothing but love for Tennessee would induce me to do so. I also stipulated that I should have the privilege of naming the Executive Committee, all of whom serve without compensation; and of nominating the officers, who also practically served without pay, as all of them together received less than was paid one officer at other expositions.

"After the organization, the next thing was to raise money. Davidson County subscribed $50,000, the city of Nashville $100,000, and individuals, firms and corporations $333,000, making $453,000, most of which has been paid, and has been judiciously and economically expended by the Director General, who is the right man in the right place. Sixteen counties have subscribed $42,000, making an aggregate of $525,000, and having secured over half a million from these sources, the United States Government made an appropriation of $130,000, making a grand total of donations, subscriptions and appropriations of $655,000

"Having secured this vast sum to be used in celebrating the 100th anniversary of the admission of Tennessee as the sixteenth State into the Union, we now come to you, as the representatives of the people of Tennessee, and ask your indorsement and your aid. We need your indorsement, for without it the Centennial will be like the play of Hamlet with Hamlet left out; like a golden wedding with the old couple not present; like a marriage feast without bride or bridegroom. We need your aid, because it will require $250,000 additional to complete our plans to attractively present the products and resources of Tennessee to the million of visitors from other States who will attend the Centennial anniversary of the grand old Volunteer State.

"Over 6,900 sons of Tennessee have contributed liberally to this Centennial Exposition with no hope of pecuniary return save in the enhanced welfare and prosperity of the people; and certainly the State can well afford to donate one dollar to every seven secured from other sources to celebrate her 100th anniversary."

Director-General E. C. Lewis was then called on for a few remarks. He stated many interesting facts in regard to the Centennial, and told of the various exhibits from the far-away countries and from our own country. Every single foot of space, he said, is gone, save a little room, which has been reserved for Tennessee exhibits. He stated that it had been anticipated that about 2,000,000 people in all would attend the Exposition.

Col. Lewis made other pertinent remarks, as did also Hon. J. M. Head, Hon. Geo. B. Guild, S. A. Champion, and others, giving important features and making so strong an argument that little doubt now exists but that a reasonable degree of unanmity will prevail with the members of both House and Senate.

THE PHILADELPHIA MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The following editorial we reproduce from a late number of the *Journal of the American Medical Association*. While it is the Centennial year in Tennessee, it is the *Semi-Centennial* of the Association, and every member who possibly can should be on hand. It is an epoch in the history of the Association. It has done much good. How much more it will do depends entirely on its members:

"The fact that the American Medical Association will hold its next annual meeting in Philadelphia, thereby celebrating the semi-centennial of its existence, is of interest not only to those members of the profession who already belong to the Association, but to those, and we believe there are many, who are desirous of entering its ranks and thereby aid in maintaining the professional standard which has so long and so successfully waved over the medical profession of this country. Fifty years next spring, under the presidency of Dr. Jonathan Knight, of Connecticut, the first great medical convention of the United States met in Philadelphia

and appointed as its secretary, Dr. Alfred Stille, of that city. It also appointed as chairman of the Committee on Scientific Papers, Dr. Oliver Wendell Holmes, and under the guidance of these men, well known in medicine and literature, the Association gained a vitality which it has never lost. It is interesting to note that at the Philadelphia meeting both Dr. Nathan Smith Davis, the organizer, and Dr. Alfred Stille, the secretary, of fifty years ago, will probably be present, as both gentlemen, notwithstanding their advanced years, are both in unusually good health. Aside, therefore, from the interest which centers around the semi-centennial gathering, the members who attend this meeting will have an opportunity of meeting these standard-bearers and of linking together the past and the present in American medicine. This interest is increased when it is remembered that during the sixty years in which Dr. Alfred Stille has been a Doctor of Medicine, he has seen more wonderful changes take place in the character of medical science than has ever been seen in a corresponding period of sixty years before our time."

THE PRESENT PREVALENCE OF LAGRIPPE.—The following suggestions will be of value at this season. The pains of acute influenza are something indescribable, especially when associated with high temperature. To relieve these with some preparation of opium is only to increase the cerebral congestion and aggravate the extreme prostration. Sharp, darting pains are no more severe than are the dull, heavy and persistent pains in the muscles and bones, which so often obtain in this disease. Clinical reports verify the value of antikamnia in controlling the neuralgic and muscular pains, as well as the fever. In fact, antikamnia may be called the *sine qua non* in the treatment of this disease and its troublesome sequelæ.

"Its seems hardly necessary to indicate the conditions when the use of two such well-known drugs as 'antikamnia and quinine' will be serviceable, the advisability of always exhibiting 'antikamnia and codeine' in the treatment of the accompanying neurosis of the larynx, the irritable cough and bronchial affections. Relapses appear to be very common, and when they occur the manifestations are of a more severe nature than in the initial attack. Here the complications of a rheumatic type are commonly met and 'antikamnia and salol' will be found beneficial. Antikamnia may be obtained pure, also in combination with the above drugs in tablet form.

"Tablets mark the most approved form of medication, especially as they insure accuracy of dosage and protection against substitution. To secure celerity of effect, always instruct that tablets be crushed before taking."—*Medical Reprints.*

THE FIFTH ANNUAL MEETING OF THE TRI-STATE MEDICAL SOCIETY of Iowa, Illinois, and Missouri, will meet in St. Louis, April 6th, 7th and

8th, 1897. A large number of valuable papers will be read. Dr. Joseph Price, of Philadelphia, will hold the Surgical Clinic, Dr. James T. Whittaker, of Cincinnati, the Medical Clinic, and Dr. Dudley Reynolds, Opthalmic Clinic. Dr. G. Frank Lydston, of Chicago, will entertain the members with an original story during one of the evening sessions. The officers are: A. H. Cordier, M.D., Pres't, Rialto Bldg., Kansas City; Hugh T. Patrick, M.D., 1st Vice Pres't, Chicago; H. C. Eschbach, M.D., G. W. Cale, M.D., Secy'y, 4,403 Washington Boulevard, St. Louis; C. S. Chase, M.D., Treas., Waterloo, Iowa.

E. B. TREAT, Publisher, New York, has in press for issuance early in 1897, the International Medical Annual, being the fifteenth yearly issue of that well-known one-volume reference work. The prospectus shows that the volume will be the result of the labors of upwards of forty physicians and surgeons, of international reputation, and will present the world's progress in medical science.

The publisher states the kind reception accorded to the "Medical Annual" has rendered it possible for him to spare no expense in its production; while the editorial staff have devoted a large amount of time and labor in so condensing the literary matter, as to confine the volume within a reasonable size, without omitting facts of practical importance.

The value of the work will be greatly enhanced by the thoroughness of illustration, both colored plates and photographic reproductions in black and white will be used wherever helpful in elucidating the text.

"To those who need the condensed and well arranged presentation of the medical advances of the past year—and this class must necessarily include all physicians—we heartily commend the 'International Medical Annual.'"

The volume will contain about seven hundred pages. The price will be the same as heretofore, $2.75. Full descriptive circular will be sent upon application to the publisher.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

"MALT EXTRACT.—This preparation, of which the best and the most known is Mellin's Food remains to be described and is of real value when used in combination with milk. It is essentially the same as Liebig's Soup, but so prepared as to be marketable."—*Domestic Hygiene of the Child, Julius Uffelmann, M.D.*

Dr. Will F. Arnold, Passed Assistant Surgeon, U. S. N., formerly of this city, has been detached from the U. S. Steamship Enterprise and ordered to the U. S. Steamer Richmond.

For Hyperidrosis of the Feet.—

℞ Formaldehyde.....1 part.
Water.....100 parts.

M. S.: A sponge is to be moistened with this solution, and the feet, including the interdigital spaces, rubbed briskly with it every morning, or twice daily.

Blennostasine is a new candidate for the relief of influenza, colds, and hay fever. It is a new tonic, vaso-motor constrictor, and will prove a valuable substitute for quinia alkaloids in the relief of colds, influenza, etc., and is superior to atropin, belladonna, etc., for diminishing excessive mucous secretion. For full information write to McKesson & Robbins, 91 Fulton St., New York City, P. O. Box, 1860.

Sanmetto in Gonorrhœa.—Dr. A. G. McCormick, Richmond, P. O., Canada, writing, says: "I prescribed Sanmetto in a recent severe case of gonorrhœa with the greatest satisfaction. I never prescribed any remedy in such cases that acted so well. The case was one of simple gonorrhœa, of a severe type—pain, burning and scalding, with a profuse discharge. By the use of Sanmetto my patient made a rapid and satisfactory recovery. Sanmetto is a sovereign remedy in such cases. I used it two years ago in a like case with a similar result. I am well satisfied that Sanmetto is by far the surest, speediest, and safest, as well as the most satisfactory remedy we have for gonorrhœa."

Nashville, Chattanooga & St. Louis Railway.—Commencing January 26, this road will inaugurate a line of Pullman Buffet Sleeping Cars between Nashville and New York, leaving Nashville at 11:20 P.M., arriving in New York at 12:45 P.M., next day.

This train carries Pullman Sleeping Cars between Greensboro and Richmond via Danville in both directions.

This car will be open for reception of passengers at Nashville at 9 P.M.

Particular attention is called to the fact that this is the only Sleeping Car Line between Nashville and above points. Connection is made in Union Depot, Nashville, with trains to and from Memphis and the West and Southwest. This line gives a daylight trip in both directions through the mountains of North Carolina.

A second train leaves Nashville 9 A.M., arrives Chattanooga 2.35 P.M.,

leaves Chattanooga 5.55 P.M., leaves Knoxville 9.35 P.M., arrives at Hot Springs 12.27 A.M., arrives Asheville 1.43 A.M., Washington 9.40 P.M., and New York 6.20 A.M. Returning, leaves New York 12.15 night, Washington 11.15 A.M., and arrives Knoxville 4.25 A.M., Chattanooga 8 A.M., and Nashville 7 P.M. This train carries Pullman Drawing Room Sleeping Cars between Nashville and Chattanooga, Chattanooga and Greensboro in both directions, and between Salisbury and New York in both directions.

The N., C. & St. Louis Railroad is undoubtedly the best equipped road in the entire South; magnificent steel rails of unusual weight, handsome and elegantly equipped cars, with courteous, attentive and reliable officials and attendants.

THE MIAMI MEDICAL COLLEGE, of Cincinnati will open its regular annual Practitioner's Course, April 15th next, continuing four weeks. In addition to didactic and clinical lectures, bedside instruction by the Faculty will be a prominent feature. Excellent and fully equipped pathological and clinical laboratories. For full information write to Dr. N. P. Dandridge, Dean, or Dr. Joseph Eichberg, Sec'y, 213 W. Twelfth St., Cincinnati, Ohio.

Reviews and Book Notices.

ANAMOLIES AND CURIOSITIES OF MEDICINE: Being an Encyclopedic Collection of Rare and Extraordinary Cases, and of the Most Striking Instances of Abnormality in All Branches of Medicine and Surgery, derived from an Exhaustive Research of Medical Literature from its Origin to the Present Day, Abstracted, Classified, Annotated, and Indexed. By GEORGE M. GOULD, A.M., M.D., and WALTER L. PYLE, A.M., M.D. Imperial Octavo, 968 pages, with 295 Illustrations in the Text, and 12 Half-tone and Colored Plates. Philadelphia: W. B. SAUNDERS, 925 Walnut Street. 1897. Cloth, $6.00 net; Half Morocco, $7.00 net. *Sold only by Subscription.*

Since the appearance of "Eve's Surgical Cases," published nearly a third of a century ago, by the late Prof. Paul F. Eve, M.D., of this city, I know of no work that is of more interest in its special field, and that will keep the Doctor fully advised of the many *exceptions* to the "general rule" as laid down in the standard literature of the day. "A collection of rare and extraordinary cases, and of the most striking instances of abnormal-

ity in all branches of medicine and surgery," as expressed in its title, in itself is quite enough to secure for this remarkable compilation of authentic and reliable observers, a ready and marked demand.

Every day, some one engaged in the large field of medical and surgical practice, somewhere in the wide world, is meeting with cases of such a peculiarity as will astound, and in many instances perplex far more so, if the observer has never in traversing the field of medical literature met with the like. Here, we have carefully collected and graphically cited many instances and occurrences that would wellnigh startle the most experienced; and it is to place in the hands of the profession facts cited from the past these anomalies, so that each and every one may not be taken unawares when the, to him, unexpected may be brought to his personal observation.

Dr. Gould, from his extended experience in medical literature of the past and present, by his facile pen, and acknowledged ability as a graceful, careful, and authoritative writer, was well qualified to undertake a work of this character. That he has been ably assisted by his associate, Dr. Pyle, this very excellent work will amply attest; and in the preface to it, they acknowledge their gratitude to the officers and assistants of the principal and most complete libraries of America, England and France. To the surgeon, the surgical anomalies are worth many times the price of the book, as may also be said of the general practitioner, and the subject of teratology alone, would justify any one in its purchase.

The mechanical execution of the work, its typography, paper, binding and illustrations are quite in keeping with such a store-house of important, and most useful knowledge. We do not hesitate to say, that anyone possessing the volume will read it with avidity and great interest, laying it aside for future reference, feeling that he has something at hand to which he can subsequently refer with the greatest satisfaction. In addition to the complete and full table of contents preceding the subject matter, and the effort to conveniently and satisfactorily group the thousands of cases, a complete alphabetical index, with numerous cross-references, with the names of authors, at the end, shows conclusively that no labor has been spared to make it valuable indeed as a work of reference.

ARTIFICIAL ANÆSTHESIA, a Manual of Anæsthetic Agents and their Employment in the Treatment of Disease, by Lawrence Trumbull, M.D., Ph.G., Aural Surgeon to the Jefferson Medical College Hospital, Philadelphia; late Honorary President of the Otological Subsection of the British Medical Association, and of the Section of Laryngology and Otology of the American Medical Association. Fourth edition, revised and enlarged; 8 vo., cloth, pp. 550. Illustrated. Price $2.50. P. BLAKISTON, SON & Co., Publishers, 1012 Walnut Street, Philadelphia: 1896.

This excellent work gives in as concise a manner as possible a description of the most available agents that may be successfully and safely employed as anæsthetics; it presents the chemical tests of purity of each substance considered, with the composition, physical characters and medical properties; exhibiting the best methods of administering the various anæsthetics, giving careful directions, and stating the precautions to be taken to avoid risk to the life of the patient, noting the personal experience of the author, his assistants and friends, with anæsthetics and the various forms of inhalers in use, with a selection of the most approved, not withholding, however, the objections, but noting the experiments of other reliable investigators; and comparing the relative mortality from all anæsthetics now employed, endeavoring to assist the reader in forming a fair and candid opinion of this most important subject.

Of the various anæsthetics, the author, preferring Ether, says of it: "It is the one systemic anæsthetic which has proved, during all these years, the most available, and the most free from danger."

In his historical views, we hardly think the author does justice to Dr. Crawford W. Long, of Georgia, but in this, he does not differ from others who believe that all wisdom comes from the East. The work is a most excellent one, and its teachings are thoroughly reliable and up to date; the latest suggestions, including Eucaine and other recent measures, finding a place in this fourth edition.

A GUIDE TO THE CLINICAL EXAMINATION OF THE BLOOD FOR DIAGNOSTIC PURPOSES. By RICHARD C. CABOT, M.D., with colored plates and engravings, $3.75. New York. WILLIAM WOOD AND COMPANY.. 1897.

While several works have been published in Germany,

dealing exclusively with this subject, this is the first to be published in the English language, and America is to be congratulated on taking the lead in this new subject, which is fast becoming one of the most important in modern medicine. The object of the book is to bring together for English readers such portions of recent researches into the condition of the blood in various diseases as may be of use in diagnosis, prognosis, and treatment.

The method is strictly clinical, and meant for practical use. Detailed directions for the carrying out of each of the various steps in the technique of blood examination are given with such care that any physician may learn to make reliable blood examinations for himself.

Special attention is paid to the use of the results of blood examination in the differential diagnosis of disease.

The condition of the blood is described, not only in the so-called diseases of the blood, but also in acute and chronic infectious diseases; diseases of the heart, kidney, liver, lungs; diseases of the nervous system; children, etc. Several thousand blood examinations hitherto unpublished are here reported, and afford a basis for the conclusions drawn.

A special feature of the book is the colored illustrations with which great pains have been taken, and it is hoped that they will be found perhaps more useful than pages of description, especially as they represent actual microscopic fields, and are not at all "diagrammatic."

A very large bibliography of important literature bearing upon the subject is appended.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

Vol. XIX. **NASHVILLE, MARCH, 1897.** **No. 3.**

Original Communications.

DIASTASE IN THERAPEUTICS.*

BY C. C. FITE, M.D., NEW YORK.

Read before the New York Medico-Surgical Society, with Abstract of the Discussion Engaged in by W. L. Stowell, M.D.; W. A. Walker, M.D.; George Tucker Harrison, M.D.; Henry Dwight Chapin, M.D.; Morris Manges, M.D.; Wm. H. Porter, M.D.; Chas. Henry Brown, M.D.; Glover C. Arnold, M.D.; John B. White, M.D., January 4, 1897.

The sprouting of a seed was considered, until quite recent times, a great mystery; not until diastase was discovered could we properly understand why a seed after being placed in a moist soil began to develop into a plant after having lain dormant perhaps for years. Under proper conditions, the life-endowed germ is no longer a sleeping unknown quantity, but is an active principle and the process of development begins.

*Read before the New York Medico-Surgical Society.

The sprouting of seed is a very interesting subject for scientific study—this awakening of the germ-life, by the influence of heat and moisture, and the action of diastase in converting the starch of the seed into maltose, which afterwards become fibrous or cellular tissue. We will not go into a discussion here in reference to the secretions by the plant of fluids which, acting through delicate roots, absorb and utilize the soil elements; of the important work done by the leaves in taking carbon from the atmosphere; and by these and other processes completing the growth of the plant and eventually a reproduction of the seed to continue the life of the species indefinitely.

Let us now leave the plant and refer to the important factor in the growth and development of animal life; the ptyalin of the saliva, a product analagous in many respects to diastase. Just as Nature places diastase in the grain to produce the changes leading up to a higher growth, so she gives animals ptyalin to convert the starch, and perhaps other foods, into assimilable material for nourishment, for heat, and a reserve supply of fat. I use the words nourishment, heat, and fat, advisedly. The starch so converted is nourishment, and it is the basis of our caloric energy. Our supply of fat comes mainly from the starch changed into maltose by the ptyalin, supplemented by the pancreatic secretions, and it is changed into oil later on in the process. This oil is not only utilized for heat but stored in the tissues as a reserve supply,

It is well to bear in mind that few carnivorous animals take on a great degree of fat; grain eating animals do. Give swine all of the fat and oils they can eat, and they will not gain in weight half as quickly as when fed on grain alone.

The function of ptyalin is to convert starch into dextrin and maltose, this being the preliminary step, and goes on in the normal stomach for from thirty to forty minutes, after the close of an ordinary meal, when the acid peptic digestion stops the diastasic process. The duodenum holding the pancreatic and other secretions takes up the partially changed starch and completes the conversion. We need not follow the process beyond this point.

It has long been observed that we do not get altogether satisfactory results in the treatment of amylaceous indigestion with pancreatic extracts. This is probably due to the fact that the

amylopsin of the pancreatic juice and the other various duodenal enzymes are intended more for completing and finishing the changes already begun by ptyalin before the peptic digestion supervenes, and are not adapted for this preliminary conversion in the stomach. In other words, they are not suitable for beginning the conversion in the food mass as found in the stomach—acting we might say on the mass later when it is an acid body, during the time it is being changed from an acid to an alkaline reaction, instead of on the alkaline or neutral mass when it is being changed into an acid mass. We see, therefore, that ptyalin and amylopsin are practically identical in their action on starches. Nature intends them to act under different conditions and at different periods of the digestive process. Therefore, we should not give pancreatic extracts with the expectation that they would render desirable service in the stomach, but we should rely upon either increasing the supply of ptyalin by slowly masticating the food, or by giving a ferment having similar properties to ptyalin; this we have in diastase.

From the discovery of diastase in malt, until quite recently, many attempts have been made to produce it in an isolated form economically enough to be used freely in medicine; without having to give it in the form of the semi-solid malt extracts which have been the only reliable form of it readily obtainable by the profession, as the liquid malt extracts do not contain an appreciable amount of diastase (See the *Boston Medical and Surgical Journal* for Dec. 31, 1896, page 669). The disadvantage in its use in malt extracts is that we have to give a large bulk of the extract to get a very small quantity of diastase; then, too, the extract contains fermentable sugars and extractive matters which may not only be of no value, but may give rise to fermentation in the stomach or intestinal tract.

So far the only chemist who has succeeded in producing an isolated diastase, economically and on a large scale, is Jokichi Takamine, the Japanese chemist (See the *London Lancet*, May 25, 1896). This investigator received his scientific education at the Glasgow University. He devoted some years to the study of malting and the production of diastase and other ferments, and upon his return to Tokio was fortunate to find that Eurotium oryzæ was what he desired. The process he finally perfected is

in brief as follows: The seed of the Eurotium is sown on moistened and sterilized wheat bran. The growth is rapid, and after the plant has reached maturity, he calls the bran with the growth on it "Taka-Koji." Upon examining this growth, under the microscope, it is found that the roots of the Eurotium, which have penetrated the bran, are covered with crystals of pure diastase. These diastase crystals have the property of converting the starch of the bran for the nourishment of the plant. Tákamine named the diastase so produced, Taka-diastase. In preparing this diastase for use in medicine it is necessary to get rid of the spore. This is done by percolating the Taka-Koji with water, and adding to this solution of diastase, alcohol, when the diastase is precipitated and the activity of the spores destroyed. It is then a simple matter to further purify the diastase and preserve it in a dry powdered form indefinitely.

This diastase, owing I presume to it being an isolated substance, acts much quicker than the diastase found in malt extracts. It will convert 100 times its weight of starch in ten minutes under proper conditions; if the process is continued for three hours, 1,500 times its weight. It is therefore evident that its amylolytic converting power is quite marked, and the theoretical position that it would prove of value in the treatment of amylaceous indigestion has been verified by careful observers many times over.

Prof. Leo, of Bonn, claims that this diastase exerts its action in a higher degree of acidity than was first claimed by those of us who had experimented with it, and that it is, therefore, superior to ptyalin in its starch-coverting power. He has employed it with benefit in cases of deficient salivary secretion, as also in hyperacidity of the stomach.

Dr. W. S. Christopher, of Chicago (*Therapeutic Gazette*, March, 1896), holds that flatulence is due to micro-organisms which attack unchanged starch and give rise to fermentation, and it is therefore important in these cases to predigest the starch in the stomach, and the more complete this process, the less food there is for the micro-organisms to act upon in the duodenum. He finds that the administration of diastase in the case gives satisfactory results.

Dr. W. Wilcox, of this city, has given very close attention

to the therapeutics of this question, as shown by two papers he read some months ago. One before the N. Y. Medical Society. January 1896, and one before the N. Y. Academy of Medicine, February 18, 1896. Both papers being published in the *Medical News*.

Other favorable clinical reports which have attracted my attention which may be mentioned here are—in the Journal of the American Medical Association for August 15, 1896, by Dr. T. H. Allen; in the *Medical Age* for July 25, 1896, by Dr. F. Spencer Halsey; and in the *Therapeutic Gazette* for September 15, 1896, by Dr. Wm. A. Walker.

In the practice of some friends, who have reported the matter to me for elucidation, this form of diastase seems to have other properties than its action on starch. In one notable case in which pepsin and other methods of treatment failed to give any benefit, although every symptom and test seemed to indicate that it was an undoubted case of albuminous indigestion, the result was not only palliative but curative. I have endeavored to have this matter settled by laboratory experiments, but so far the results have not been entirely conclusive, so any theory on this question for the present must be based mainly upon clinical evidence. This diastase does, as was shown by the experiments referred to, *disintegrate* albumens, but the proteolytic action *apparently* stops short of the production of albumoses and peptones. As to what takes place in the intestinal tract, of course we cannot yet say. It is altogether probable that the benefit in these cases is due to the promptness with which the first period of digestion is carried on, and the conversion, instead of the fermentation of the starchy foods, leaving the second process, the acid peptic digestion, to go on normally without being interfered with by deleterious products, and the partial disintegration above referred to, doubtless promotes the activity of the gastric juice by giving it freer access to the particles of albumen.*

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*Since this paper was written, I have been informed by Mr. F. A. Thompson, a skillful Detroit chemist who has given close attention to this subject, and performed a number of elaborate experiments with diastase and other digestive ferments, that he has found that Taka-diastase does

We should always bear in mind that we have from thirty to forty minutes after the close of an ordinary meal in which the action of ptyalin or diastase will continue before the acidity of the stomach contents reaches the point at which such converting power is impaired or destroyed. The proper theory for the administration of diastase is that it supplements the ptyalin of the saliva, and the more thorough the preliminary digestion in the stomach, the less work there is to be done in the duodenum. The formerly prevalent theory that pancreatic extracts and diastase ought in some mysterious way to find their way through the stomach into the duodenum, and there begin their work, is too absurd to be entertained. (See Dr. Walker's article above referred to.) I am indebted to Dr. Henry Dwight Chapin for information in this connection (*N. Y. Medical Journal*, September 16, 1893), the results of some elaborate experiments which he had made in the Post-Graduate Laboratory in 1893. The experiments were made with a product containing diastase; the stomach was washed out and after the subject had been properly fed the diastase was administered in certain cases and omitted in others. The report made to Dr. Chapin by the chemist in charge of the work was, that, when the stomach was emptied forty minutes after the administration, the percentage of food remaining in the stomach at this time averaged, when diastase was not given, 52.02 per cent.; with diastase, 29.2 per cent. This showed very conclusively the action of the diastase in the stomach. An analysis of the solid food remaining in the stomach showed that when diastase had not been administered, 7.02 per cent were undissolved; when it was given, only 3.45 per cent.

Experiments with diastase have not up to this time been as satisfactorily conducted as those made with pepsin, for the rea-

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undoubtedly, not only disintegrate albumens, but produces albumoses and peptones as well. This is an important and interesting discovery, and perhaps confirms the work of the German chemist, Bezanes, who found that in producing diastase from malt, a by-product, which he named peptase, was formed, which acts on albumen. It is therefore evident that as there is formed in grain a product to change the albumen of the grain as well as the starch converting ferment, so the Eurotium has a ferment similar to peptase for converting vegetable albumen for its nourishment. The peptase produced in malting is extremely slow in its action, due perhaps to its being interfered with by the thick gummy malt products.

son that diastase is a sensitive body, and the value of any laboratory or test-tube experiments are apt to be contradictory, unless proper precautions are preserved as to the degree of heat used, and the various brands of starch found in the market vary in reaction and in their sensible properties. It is to be hoped that we will soon have definite tables in use for this work, so that all experiments being made by a uniform standard, the results can be more intelligently compared and studied.

I might add, in conclusion, that the therapeutic properties of diastase have not yet been as thoroughly investigated as could be desired. A good deal of careful work is now being done by investigators in this and other countries, and I am confident that the literature of the subject will be enriched very greatly in the near future.

So far little has been done with diastase in practical medicine beyond its use in typical cases of amylaceous indigestion. What we may expect from its employment in partially converting the starch of barley water for infant feeding remains yet to be determined, but I am very hopeful of its use in such cases. The fact of the casein of cow's milk being so much more dense and liable to form tough curds than human milk, has led me to hope that if we partially convert the starch of the barley water it will become not only a mechanical diluent for milk, but a readily absorbable food as well, which will nourish and not give rise to fermentation and flatulence.*

Some time since I witnessed several experiments in bread-making made by Mr. C. Von Egloffstein, then of Yonkers, now of Brooklyn, N. Y., to determine the value of diastase in rendering bread more soluble. His conclusions were that the soluble matter in ordinary bread in water at a temperature of 100° F. represented at the end of an hour 15 per cent., whereas, when a proper amount of a product containing diastase was added to the bread before baking the soluble matter under the same conditions was 40 per cent.

It is more than probable that diastase will play an important part in the therapeutics of the future.

102 W. 93rd Street.

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*See Dr. Chapin's remarks in the discussion following.

DISCUSSION.

DR. W. L. STOWELL: I wish to express my pleasure at listening to this paper. Medical societies have spent so much time of late in discussing contagious diseases and brilliant operations, that the more common diseases have been largely overlooked. We should, therefore, thank the reader of the paper for bringing up this subject. Difficulty of digestion is not epidemic—it is pandemic; it is with us all the time, for people eat more than they should, as a rule.

For the last five or six years I have been greatly interested in the various forms of indigestion and the remedies supposed to overcome these. Most of the diseases we are called upon to treat, if not due to direct infection, are due to some difficulty in the digestive tract. These difficulties are either fermentation from pathogenic organisms or deficiency of digestive ferments. Antiseptics, while they prevent the formation and development of germs, and so prevent indigestion to some extent, do not assist the digestion of food in a weak digestive tract. Therefore, we need to help the patient by first selecting suitable food, and, secondly, by helping him to digest what food is taken in.

For a long time I have used the various malt extracts for their diastatic properties, some claiming them to have great diastatic power, and others not. As a matter of fact, the malt extracts go far towards increasing nutrition, if not nutritious in themselves. Unfortunately if large quantities of malt are given, indigestion arises from this cause. I find many patients rebel against malt; adults often objecting to the taste of it, to say nothing of the effect upon the stomach.

Another useful remedy for starch indigestion is Taka-diastase, as it is claimed to have the power of digesting over a thousand times its weight. Certainly a dose of two or three grains will very materially aid in converting the starch, and so minimizing the flatulence and indigestion, and the accompanying disagreeable symptoms.

For some time I did not obtain as good results as I have more recently, probably because I had not learned to distinguish between starch and proteid indigestion. Patients who complain of bloating and pressure an hour or two after meals, and who complain also of constipation most of the time, can, as a rule, be

greatly helped by diastase alone. If this does not work well alone, it will do better when combined with salol, or some similar antiseptic. The more I have used these remedies the better I have been pleased with them.

I have been interested in the great variety of symptoms exhibited by different individuals and different constitutions. It requires much close questioning in the case of a child to determine what article of food is chiefly responsible for the indigestion. Diastase is just as good for the nervous individual with indigestion as for a person of phlegmatic temperament, with sluggish secretions and indigestion.

I recall an interesting case of vomiting during pregnancy. The patient suffered from inability to digest both proteids and starches, but particularly the latter. She suffered very greatly from the resulting distension, but this was overcome by the administration of Taka-diastase. After awhile the stomach rebelled, but then by washing the stomach it became possible to return to proteids. One or two patients have come to me from a distance suffering from an aggravated form of starch indigestion, and these have done exceedingly well upon diastase. One of them improved with diastase alone; the other did better when it was combined with salol. Our trouble with the digestive ferments is that we do not pay sufficient attention to the different forms of indigestion, usually preferring to depend chiefly upon a routine dose of rhubarb and soda.

Dr. William A. Walker: I desire to express my gratification at being present to-night and listening to this very interesting paper. We certainly owe Dr. Fite a good deal for having brought forward so clearly the scientific side of this subject. Most of us are not in a position to study the scientific side. Laboratory work should go hand in hand with our clinical work, but most physicians must depend upon the regular laboratory workers for such knowledge. It is the physician's province to put this knowledge into practice at the bedside.

In general practice we certainly meet with a large number of cases of dyspepsia. Americans have the reputation of being a dyspeptic race, and this is certainly true. It is not unusual for a business man to come to us complaining of an attack of indigestion, coming on—not in the morning, as a rule—but in the

afternoon after the mid-day meal. They usually complain of heaviness, stupor and languor, and inability to concentrate attention on the work before them. In many of these cases the trouble is due to weariness after the morning's work, the taking of a hurried luncheon and the hasty return to work. Generally the articles of food for the mid-day meal are not well selected, but we cannot get them to make a proper selection. What are we to do for these people who complain of distention and bloating an hour or two after the meal? I have had the most satisfaction from the use of the Taka-diastase. One advantage is that it is tasteless. I prefer to give it in capsule, because if administered in the dry form, the patient usually complains of a dryness of the throat. The malt extracts have the disadvantage, as has been said by Dr. Stowell, that the patient very soon tires of them; they become disgusted with the sweet taste, and the bulkiness of the dose. This holds good, no matter in what vehicle the physician may direct that the malt extract be administered.

The question is often asked: What is the advantage of giving the diastase? It has been argued, principally on theoretical grounds, that the giving of an artificial digestive agent cannot produce a cure, but that it simply does a certain amount of work which the stomach should perform. I think Dr. Fothergill spoke of this practice as "pauperizing the stomach." This may be true in long-standing cases, but it certainly does not apply to the more acute cases. Most of its good effect is produced by supplementing the digestive ferments of the stomach. I have found in certain cases that after washing out the stomach there would be left over from the previous day portions of the food. I have then given the diastase, and have found, on subsequent washings, that a good portion of the food had been digested. The cure is effected, I suppose, in this way. Most of the trouble in dyspeptics is probably due to the leaving over of some undigested food from one meal to another. The diastase prevents this.

Again, it is often very difficult to know how to feed children who have been just removed from the breast or the bottle. Mothers are not usually very particular about what the child takes at this period. Here we often find a furred tongue, a bloated stomach, constipation, and an unhealthy child. If we can induce the mother to restrict the diet, and give some form of

diastase, we are likely to restore the child to health. I have found it a good plan to soften zweiback with water—not milk—and then sprinkle a little Taka-diastase over it. Or, a little diastase can be stirred up with almost any of the ordinary morning foods, and given to the child without its knowledge.

Dr. George Tucker Harrison: This is a subject in which I have taken a great interest for some time. Like most clinical observers, I often meet with these cases of indigestion, which in former times, we erroneously looked upon as due to proteid instead of to amylaceous indigestion. I, therefore, hail with pleasure, as a great addition to our therapeutical resources, this new diastase—a substance which certainly appears to be worthy of extended and careful trial. The surgeon has of late been giving more attention to this subject, because he has learned that something more is necessary than to perform a brilliant laparotomy for appendicitis, or extra-uterine gestation, or what not. Doubtless patients have been lost from ignorance of the physiology of digestion.

Only two or three years ago, I saw in consultation with a friend, who had performed a Cæsarian section, a case in point. The patient was very nearly lost because of an enormous distention of the abdomen, due to the development of gas in the intestine. Fortunately, the distention was relieved by lavage of the stomach. But in many of these cases we must pay more attention to the physiology of digestion, in order to be able to choose a proper diet for them.

Since Dr. Fite called my attention to this new diastase, I have used it considerably, and have been much gratified with the results of my observations. In one case which comes to my mind —a lady of fifty-five years had taxed my therapeutic resources to the utmost. I had used, among other things, a preparation of nux vomica, pancreatin, and fel bovis inspissatum. This utterly failed. I began then the use of Taka-diastase, and the result was truly brilliant. The woman suffered from the usual symptoms of intestinal indigestion; flatulence, colicky pains after eating, mental depression, insomnia, etc. In other cases, I have met with equally good success.

I was particularly interested in Dr. Walker's remarks on the use of diastase in infant feeding. These cases have perplexed

me beyond measure. Probably there is not a practitioner present this evening who cannot recall a number of cases in which he has felt that the child must starve to death because he was unable to feed it.

My friend Dr. Wilcox says that the trouble with these liquid malt extracts is that, owing to the quantity of alcohol they contain, and the development of acids consequent upon fermentation, the action of the diastase is inhibited.

Last summer I had a child who had to be artificially fed. I made use of the Walker-Gordon method of feeding with no success. I used sterilized milk and barley water with no benefit whatever, and a similar result followed the trial of all the usual preparations. The child was emaciated to skin and bones. I then resorted to milk with a superior quality of malt extract. I have never seen a child thrive as this one did. I believe it was entirely due to the action of what diastase was contained in the malt extract.

DR. HENRY DWIGHT CHAPIN: Unfortunately, I was unable to get here in time to hear Dr. Fite's paper, but I am familiar with his views on this subject, particularly as regards infant feeding. The remarks of Dr. Harrison have interested me especially, for his clinical experience makes these observations carry much weight, although theoretically I cannot understand how the results were obtained.

There are two well known methods of acting on the casein of cow's milk for infants, viz.: (1) the mechanical; and (2) the physiological. The mechanical method consists in adding some diluent, such as barley water, or the old "flour ball." I think that, on the whole, we get better rssults by mechanical means than by peptonizing the milk. When the method of peptonizing milk was first brought out, most of us thought that the problem of infant feeding had been largely solved. I tried the method with much enthusiasm, yet I found that the simple peptonizing of milk did not, on the whole, give very good results. In some difficult cases it certainly does succeed, but this has not been the rule in my experience.

This has led me to go back to the old method of attenuating the milk by the addition of cereals. We all know that young infants cannot digest much starch, although they can digest some

by means of the mouth secretions and the secretion of the intestinal mucous membrane. I made a series of experiments at the laboratory, and at the bedside, regarding the action of diastase on barley. I think we succeeded in this way in getting the good effect of the attenuating qualities of the barley, and, at the same time, in reducing to a minimum the bad effects of the starch. Clinically, this method gives good results in very many cases. The process is not a difficult one, and this, in itself, is a recommendation for the method, for in infant feeding it is highly important that the rules for the preparation of the food shall not be complex. Even skilled nurses often make mistakes in the process of peptonizing milk. At times, there may be trouble from a weakness in the ferment itself.

In many cases, by diluting fresh cow's milk with barley or wheat flour, after the starch has been treated with diastase, we shall get about as satisfactory results as from any other method of artificial feeding.

DR. MORRIS MANGES: My own experience strongly corroborates that of Dr. Walker as to the value of diastase in infant feeding. How it acts, I do not know, but I know that it does act. With children who do not thrive on breast milk, or substitutes for it, I can say that the addition of ten drops of maltine, or more recently, the use of Taka-diastase, has given me uniformly good results. This is a simple clinical fact.

I believe the use of preparations of diastase has been of service in one way particularly, *i. e.*, in calling our attention to the importance of the saliva in digestion. We had almost lost sight of its value, notwithstanding the fact that it is secreted in such large quantities. We must admit that so far as experimental work has added to our knowledge, we are still much in the dark regarding this important fluid. Just to what substance in the saliva the action on the starch is due, aside from the ptyalin, we do not know. Certainly it is not the ptyalin alone. The experiments of Jawein, of Vienna, and of others, have shown that the ptyalin was lessened in certain acute infectious diseases, diabetes, renal and cardiac diseases; but, strange to say, it was not at all lessened in tuberculosis. On the other hand, experiments by Friedenwald have shown that saliva can be boiled and the ptyalin thus killed, and yet the saliva will have a beneficial

action in promoting starch digestion. It is evident, therefore, that other constituents besides ptyalin are at work.

Now, by giving Taka-diastase, can we really replace the saliva? That a ferment is, after all, not the original digestive fluid is a point which is very often lost sight of. Every single digestive juice shows us that there is something more than the ferment which is active. Just what important role is played by the carbonates, and by the nascent oxygen in the mouth is not yet known. This recalls to my mind an experience with a chemist in Berlin, who was working with very delicate test papers for nascent oxygen. He found that if he used large quantities of saliva, by meaus of chewing gum, he obtained a most delicate reagent for nascent oxygen.

However, there are other factors to be considered. In the mouth there is a condition of fermentation going on, often leading to acidity. We must be sure of the condition of the mouth before resorting to the admininistration of ferments. To one who has not investigated this subject, the condition of the mouth is surprising. Dentists understand this matter better than physicians. Another important factor is the selection of the food. If we can accept the term, "amylaceous dyspepsia," it is rational: (1) to take care of the mouth; (2) to select proper food; (3) to insure the secretion of a large quantity of saliva by Nature's means—thorough mastication of the food; and (4) to resort to ferments. I would not resort to ferments before that, because the pernicious habit of "bolting" the food would then be rather encouraged. I think, after all, Fothergill was right in saying that these remedies are crutches—although certainly very valuable ones—and hence, that they should be used as only temporary agents. It would be well for all of us to repeat the old experiment of adding saliva to starch, and then comparing this with the effect of adding diastase. I think we should hold the diastase preparations in reserve until other methods have failed. Alkalies ought to be associated with diastase, especially in cases of hyperacidity, in order to neutralize some of the excessive hydrochloric acid in the stomach, to permit the continuation of the action of the ferment on the gastric contents.

Dr. William Henry Porter: I do not quite know why I consented to come here to-night and take part in this dicussion,

for I am afraid I am not in a position to discuss Taka-diastase—which I have no doubt is the best preparation of diastase yet produced—or even diastase as a therapeutic agent. The subject of indigestion, and of intestinal indigestion in particular, is one of the most interesting ones in medicine, to my mind, but I must confess that I have had very little experience with any of the diastasic ferments. If I wish to correct starch indigestion, I get rid of the starch first of all. In the adult it is a comparatively easy matter to get rid of the starch. In my own practice, I rely very largely upon the proper regulation of the diet—a proper regulation of the food as regards both quantity and quality. I think we must admit that the animal organism is capable of digesting a certain quantity of material if up to the physiological par, and that if below this point, it is not able to digest such a quantity. In such a case, we must cut down the quantity to be digested. If we do this, we shall find that the indigestion will disappear. I believe that the statement that Fothergill makes, that it is wrong to use artificial ferments, is a wrong view; for, in my opinion, when an individual has fallen below physiological par, in the ability to produce ferments there is also a deficiency, and that they never can digest enough food to keep the system up to par, and so repair the damage. By using these ferments, we can aid the stomach so that a proper supply of nutritive pabulum is taken into the blood. By doing this, we increase the ability of the digestive organs to manufacture ferments of their own. We can materially cut down the artificial ferments used, and the individual will quickly return to the normal condition.

There is one idea which is very prevalent in connection with starch, and which I think is a very erroneous one; and that is, that starch is a fat-producing element *per se*. I do not believe the animal organism ever converted starch into fat. If what the chemists say is true, that statement is a correct one. They say that when you commence to split up the starch compounds in the animal organism, they tend to become less complex, and that synthesis does not occur in the animal organism. Therefore, I believe we must give up the idea that fat was ever made out of starch. The only reason for that belief was an experiment made many years ago, in which two pigs were taken from the litter,

both pigs being of about the same weight. Pig No. 1 was cut up and a quantitative estimate made of the fat. Pig No. 2 was fed on starch, and nothing else for a week or ten days. It was then killed, and a quantitative analysis showed a little more fat than in Pig No. 1. Consequently, the statement has been handed down for years, that starch is converted into fat. I believe that all the fat we get in the animal economy comes from the katabolic destruction of proteid bodies, and I think we have pretty good clinical evidence of that. Where we cut off every bit of starch and use simply proteids, sugar, and fat, these people, in the absence of starch, will progressively increase in weight. This comes, I believe, from a better utilization of the proteid elements, and not of the starch and fats. I believe that the fats and the starches are simply heat producing elements. A proper adjustment of the starches and fats is necessary, and when we cut off the starches, I believe we must substitute a little alcohol to generate the heat in about the same proportion as would be generated if we used the starch. A certain number of grammes of starch are capable, for instance, of producing a certain amount of heat. If we deprive the system of that amount of starch, we must get that equivalent of heat out of alcohol.

If we consider many of these numerous little points I think we can very satisfactorily manage these cases of indigestion. Personally, I do not like the terms "albuminous," or "amylaceous," or "fatty" indigestion. I think the difficulty is either a gastric one or an intestinal one, and, therefore, in my opinion, these are the only two kinds of indigestion that we should consider from a clinical standpoint. The sooner we come to this simple method of considering the subject, the quicker we shall arrive at a more rational basis of treatment.

DR. CHARLES HENRY BROWN: The subject of ferments is a very large one, yet very little has been left after the reading of this paper for the practical physician to discuss. Those who have used Taka-diastase are aware that it is a diastase, and that it will artificially digest starch in the test tube, and also in the fermentative forms of dyspepsia. The subject of ferments begins with the dawn and ends with the night; we see it at birth, and we see it at death; we see it bringing health, comfort, distress, disease. It is a subject which we physicians must under-

stand and apply intelligently. We have heard to-night regarding the use of diastase in the feeding of infants. Practically, it aids in the digestion of amylaceous substances. I have used for years some form of diastase in the artificial feeding of infants, from birth until they are able to take food independently of the bottle, and I think it is a very great aid to us in the frequent but puzzling idiosyncrasies of infantile indigestion. The question Dr. Porter has raised as to whether starch alone makes fat or flesh is not the one for discussion—it is rather the chemistry of the action of diastase, which undoubtedly produces a certain amount of flesh. If we give pure alcohol, we do not see it; if we give malt, we do see it. People at the time of life when the heat-producing mechanism, is most active, put on flesh. A certain force produces this flesh and a storing up of fats.

In Taka-diastase I think we have a better preparation for treating certain forms of indigestion in adults than any other. It is a powder, and the diastase is measurable. The addition of alcohol interferes seriously with the digestive action of diastase. All of us know that malts which contain a large quantity of alcohol often increase the distress of dyspeptics. There can be no question that Taka-diastase is a remedy which we can use either internally, or in pre-digesting food. We can also use it in aiding nutrition, probably by stimulating the proteids and increasing heat production by its chemical action on starch. I have found that delicate infants, when given Taka diastase in proper quantities, wiil show the result of this stimulant action, as well as delicate adults. When given symptomatically, it relieves the distress experienced in the various forms of amylaceous dyspepsia. This seems to me to cover the whole subject, so far as it is at present known.

Dr. Glover C. Arnold: What are the maximum and minimum doses of Taka diastase for adults and infants?

Dr. Fite: In experiments at the laboratory, it seemed that one grain converted firteen hundred grains of starch in three hours, one hundred grains in ten minutes. After extended observation it was determined that two grains and a half, given during a meal, was an average dose for an adult. Some physicians have used five grains at a dose, but this has appeared to

cause too rapid a conversion of the starch. It seems that the doses for infants are proportionately larger, *i.e.*, one grain for a child of two years.

DR. WILLIAM H. PORTER: Were these laboratory experiments made with starch and diastase alone, or in conjunction with proteid matter, etc?

DR. FITE: With all the digestive ferments from all sources and on starches and proteids. Dr. Porter spoke with reference to making fat from proteids. I would like to take him on a farm and let him see how long it would take him to fatten a hog with meat alone.

DR. PORTER: I would like to go with Dr. Fite on a farm and let him try to fatten a hog on starch and sugar, and take out the proteid matter. We must remember that there is proteid matter in corn and grain.

DR. HARRISON: The experiment has been tried on a very large scale, and I think it has been proven in an exact, scientific manner that sugar does produce fat. Experiments have been tried on the sugar plantations in Louisiana, and every man who knows anything about it, knows that the "little niggers" all get fat when they are boiling sugar, and get plenty of molasses and sugar cane.

DR. PORTER: There is no question about the fact as stated, but it does not alter the situation of the chemist. An individual is capable of taking in normally 750 grammes of oxygen daily. Starch, sugar and fat burn more rapidly than proteids, and if they are taken in excess, you exhaust the oxygen supply; there is insufficient oxygen to oxidize the proteids, as a result, one of the katabolic products of the imperfectly oxidized proteids is fat, which of necessity accumulates as fat in the system.

DR. JOHN BLAKE WHITE: I should like to speak with reference to the practical aspect of the subject. Theory is beautiful indeed, and is most fascinating, but actual results, and the practical side are, after all, more important. I cannot discuss chemistry with Dr. Porter, but I can speak of the results obtained in practice. These substances certainly do produce fat. Whether this can occur from the chemist's standpoint, or not, I cannot say, but the fact remains.

I desire to add my testimony to the value of assisting faulty

digestion by these means that have been discussed here this evening. My experience with Taka-diastase, and other digestive ferments, tends to confirm the position taken by the essayist. I have always looked upon my cases from a purely practical point of view, endeavoring to ascertain what was really at fault, and then remedying this. I endeavor to regulate the diet. In cases where the indigestion appears to be due to the defective digestion of starchy matter, we can resort with advantage to the use of preparations of diastase. The weight of authority certainly favors such a view.

DR. FITE closed the discussion. He said: I wish to thank you, gentlemen, for the interest you have shown in the subject presented in my paper. Dr. Manges alluded to the good work of Dr. Friedenwald, of Baltimore, with saliva. I have had the pleasure of discussing this matter with Dr. Friedenwald recently, and I would say that he has been experimenting with Taka-diastase for the last few months. I think the results of his work will be found to be exceedingly interesting and important. Dr. Friedenwald is high authority in this line of work. So is Dr. Manges.

DIPHTHERIA.

BY T. E. MITCHELL, M.E.L., M.D.,
Member of the American Medical Association; Member of the Medical Association of Georgia; Member of the Columbus (Ga.) Board of Health, Columbus, Ga.

In the words of Lewis Lmith, "Diphtheria is one of the most dreaded, one of the most fatal, and, unfortunately, one of the most common maladies of childhood." It is an acute blood disease characterized by a membranous deposit at the point of infection, which is usually in the pharynx, but may be at an abraded spot on some other part of the body where the specific germ may have been deposited. It occurs epidemically and endemically, more rarely, sporadically. By infection is meant the transmission of disease by contact, or by inoculation of the healthy with particles of the pathological process of the diseased.

By contagion is meant the transmission of disease to the healthy by the specific germ being conveyed through the atmosphere, by the clothing, or some similar vehicle, as are the germs of scarlet fever, measles or smallpox. Although the bacteriological nature of diphtheria was not definitely understood till within comparatively recent times, Hippocrates and his associates no doubt had the same malady to deal with under the name of the Egyptian evil, the Syriac ulcer, and subsequently it was known as croup, angina trachealis, but more commonly as gangrenous sore throat, till long after Galen's time, when its membraneous character was recognized and written of in the early part of the Seventeenth century, by Cortesius, Baillou and others.

It is decidedly a mooted question as to whether diphtheria is primarily a local or constitutional disease, some most eminent physicians being found on either side of the question. One school of pathologists takes the position that the constitution is primarily invaded by the specific germ of diptheria, and, after a period of incubation, varying from three to eight days, the characteristic local manifestations in the fauces appear, either coincident with or soon to be followed by constitutional symptoms varying in severity with the type of the prevailing epidemic.

In favor of this theory the disease is frequently ushered in by the most violent constitutional symptoms, such as a chill followed by great febrile reaction, accelerated pulse, headache, loss of strength, anorexia, and a scanty, high-colored urine containing albumen; or, there may be suppression terminating in death of the patient in twenty-four to to thirty-six hours, by overpowering the nerve centers before any very great faucial lesions are manifest. Another class of pathologists argue that the diphtheritic germ is deposited in the fauces and on the tonsils, where a culture medium more or less propitious is found, and begins its work of reproduction, while at the same time the leucocytes, (nature's standing army), appear upon the scene and begin a warfare, (phagocytosis) on the invading army of pathogenic germs. If the phagocytes gain the ascendency, health is maintained, as instanced by the many throats that are invaded by bacteria with impunity. On the contrary, if the disease-producing germs gain the mastery, an inflammatory process is set up in the mucous membrane characterized by dilatation of blood-

vessels, transudation of serum and the escape of leucocytes, forming the specific diphtheritic membrane. Unlike a croupous inflammation in which the false membrane is deposited upon the mucous surface a diphtheritic pseudo-membrane penetrates, and is incorporated in the mucous layer itself, and cannot be removed without the rupture of small blood-vessels in the mucous membrane. It is argued by those who claim that diphtheria is primarily a local disease, that during the inflammatory process above described, alkaloids or ptomaines are formed, and, entering the circulation produce the systemic effect. The experiments of Frankel in 1890 seem to have proven the above theory to be true, by filtrating a culture of the diphtheritic bacillus and injecting the filtrate from which all the bacilli were removed into rabbits, producing all the constitutional symptoms of diphtheria, the local manifestations being absent, thus indicating that the local morbid process is due solely to the specific germ, while the systemic infection is due to the absorption of its ptomaine or toxine. Whether the morbid anatomy of the fauces in diphtheria be a local manifestation of a constitutional disease, or whether the systemic infection is secondary to, and dependent on, the specific deposit in the throat has little to do with the therapeutic indications. All pathologists agree that the specific etiological factor of diphtheria is the deposition on the faucial mucous membrane of what is known as the Klebs-Lœffler bacillus, where, finding a suitable culture medium for its growth and multiplication, it sets up a process of inflammation which assumes the diphtheritic type.

In 1868 Buhl announced the bacterial origin of diphtheria; in 1883 Klebs isolated the particular bacillus, and subsequently, Lœffler in 1884, confirmed Kleb's observations by culture experiments, since which time the specific micro-organism has been known as the Klebs-Lœffler bacillus. Among the predisposing causes, diphtheria is pre-eminently a disease of childhood, by far the greater number of cases occurring between the ages of one and five years. Cold, damp weather, and defective hygienic surroundings are predisposing factors, because they produce catarrhal conditions of the upper air passages, and impair the general health and lessen the resisting power of the system. One of the most potent predisposing causes is the existence of

enlarged faucial tonsils and adenoid growths in the naso-pharynx. In my opinion the danger of an enlarged and chronically inflamed tonsil as a predisposing factor cannot be over-estimated, inasmuch as these ragged masses of lymphatic tissue with their open-mouthed crypts form an ideal culture ground, for not only the diphtheritic germ, but for other pathogenic bacteria as well.

The symptoms of diphtheria vary in severity according to the type of the prevailing epidemic, from a catarrhal inflammation with slight systemic effect, in which a close study of the case or a microscopic view of the specific germ is necessary in making a diagnosis, to the most malignant form where death results early from the virulence of the systemic infection. In most cases, however, an attack is ushered in by pronounced symptoms from the first; a general feeling of malaise, languor, anorexia, with a stiff, uncomfortable feeling about the throat and angles of the jaw, all of which symptoms become intensified and accompanied by a febrile reaction of two or three degrees in twenty-four to thirty-six hours, at which time the characteristic membrane is found in the fauces, presenting a thick, velvety appearance of a bright yellow color. About the third day the pseudo-membrane becomes necrotic and bathed in a muco-purulent discharge, with a tendency to exfoliation. The patient is now profoundly under the influence of septic infection, both from ptomaines of the specific bacillus and toxic agencies generated by tissue necrosis in the fauces. If the case is to terminate fatally, death is produced in one of two ways: Laryngeal stenosis or blood-poisoning. If, in the former way, one or more points of deposit are formed on the laryngeal mucous membrane which rapidly coalesce, forming a complete fibrinous cast which so far encroaches upon the lumen of the air passage as to produce asphyxia and death from carbon-dioxide poisoning. On the contrary, if death is to be due to blood-poisoning, the patient will grow listless and apathetic, the temperature fall to near normal, the circulation become feeble and rapid, the breath very offensive from the local necrotic process and the general absorption of morbid material, the system assume a typhoid condition generally, terminating in dissolution with all the symptoms of septicæmia. Among the complications and sequelæ, albuminuria and paralysis are by far the most important. Some careful

clinicians have estimated that the kidneys are more or less involved in from thirty-five to fifty per cent. of all cases. The renal complications appear in varying degrees of intensity, from the mildest form in which there is but a trace of albumen, to the severest types of nephritis with large quantities of albumen and granular or hyaline casts. It more often partakes of a complication than a sequela, seldom appearing later than the first week of the disease. Paralysis is either a sequela pure and simple, or becomes so by manifesting itself as a symptom during convalescence, and remaining till the patient has otherwise recovered.

Paralysis is observed in from ten to twenty per cent. of those who recover. There are not a few practitioners who believe that croupous laryngitis (membranous croup) and diphtheritic croup are one and the same malady, but my knowledge of the subject leads me to believe that while the principal symptom (embarrassed respiration) is due to the immediate presence in the larynx of the pseudo-membrane, their origin is by no means the same.

While I believe that membranous croup, as compared with diphtheria, is a very rare disease, I am equally sure that it has a distinct entity, with its etiology possibly in a specific germ of low vitality. Pathologists agree that the pseudo-membrane in the larynx is anatomically and microscopically the same, whether due to diphtheria or croup. In diphtheria there is a diphtheritic inflammation in the fauces, the deposit being characteristic, and if the laryngeal mucous membrane is at the same time involved the inflammation here assumes the croupous type; the terms diphtheritic and croupous being used according to Virchow to designate the types of the inflammation without reference to the disease producing it. Just why diphtheria should produce one form of inflammation in the fauces, and a different form in the larynx I am unable to say, unless it be due to a difference in the epithelium from squamous in the fauces to columnar-ciliated in the larynx.

Believing, as I do, in the duality of croupous laryngitis (membranous croup), and a similar false membrane due to diphtheria, it remains to name some points of differentiation between the two diseases.

Croup is purely local, neither contagious nor infectious; occurs usually sporadically, rarely endemically, never epidemically.

Diphtheria is constitutional (?), contagious and infectious; rarely occurring sporadically, more often endemically or epidemically.

Croup begins primarily in the larynx, accompanied by a hoarse cough with a characteristic metallic ring, the voice is quickly reduced to a whisper, or there may be aphonia. Diphtheria begins primarily in the throat, and later the pseudo-membrane is formed in the larynx.

In diphtheria the sub-maxillary and neighboring lymphatic glands are swollen and deglutition painful. In croup these symptoms are either absent or exist in a slight degree. A diphtheritic pseudo-membrane may appear by infection on any mucous membrane or on an abraded cutaneous surface; this is never true of croup. In croup there are no symptoms of septicemia, the disease runs a rapid course, and is sthenic throughout.

Diphtheria is longer in duration, asthenic in nature and generally characterized by symptoms of septicemia. In croup there are no complications or sequelæ, and death is always due to suffocation. Complications and sequelæ are common in diphtheria, particularly albuminuria and paralysis. The mortality rate of diphtheria is notably influenced by the surroundings of the patient, the intelligence of the nurse, and the character of the prevailing epidemic. Age, likewise, has much to do with the prognosis, the resistance offered by the constitution to the septic infection increasing with the age of the patient, while the danger of laryngeal involvement decreases. The management of diphtheria may be divided into prophylactic hygiene, therapeutics of the disease itself and the intervention of surgery for the relief of laryngeal stenosis when present. It is not within the province of this paper to submit statistical reports of the comparative value of remedies used, but to give concisely what appears to the author to be the most feasible line of procedure in a given case.

As soon as a diagnosis is made, the patient should be placed in a well-ventilated room, from which all unnecessary furniture has been removed, preferably on the second floor, with a southern exposure, and the temperature kept at about seventy degrees F. No one should be allowed in the room save the necessary attendants, who should be plainly clad, the outer garment being a kind of overall of starched cotton goods, which could be easily removed

when necessary to leave the room. The germ of diphtheria does not permeate the atmosphere so readily nor to such an extent as does that of measles or scarlet fever, hence isolation is more effective. The specific germ, when emitted from the body, is incorporated in particles of the false membrane expelled or other ejecta which holds it imprisoned till dried, when the atmosphere may act as a medium of transmission. Corrosive sublimate, 1 to 1000, is a most effective germicide, and solutions of it should be kept readily at hand, into which all soiled linens, napkins, etc., should be dipped before being removed from the room. When the patient has recovered, or died, all beddings or linens should be soaked in the germicidal solution and removed while wet, and thoroughly boiled or burned. The room should be tightly closed and fumigated by burning sulphur. All members of the family, especially children, should have their throats mopped or gargled once a day with phenol m.x., Monsel's solution ℥i to glycerine ℥i, or some similar prescription, while their noses should be irrigated with an aqueous solution of chlorate of potash. Diphtheria seldom attacks a healthy mucous membrane, therefore all enlarged tonsils and adenoids should be removed at times when there is no diphtheria, and the throats of all children kept in a state of health.

The therapy of diphtheria is divided into local and constitutional, and is intended to meet two important indications: First, to counteract and control the constitutional effect of the ptomaines and other toxines taken into the system at the point of infection; second, to limit the extension and lessen the virulence of the infectious quality of the local inflammatory process. To meet the second indication many drugs have from time to time been used with varying degrees of success. Without going into a detailed description of the comparative value of these agents, in my opinion, the most rational local treatment is that of irrigating the parts with a warm, non-irritating, alkaline and antiseptic solution, followed by an application of iron (preferably the tincture of the chloride, or Monsel's solution suspended in glycerine) every two to four hours, according to the severity of the case.

A fountain syringe is preferable in making the irrigation, and the child should be in a sitting posture, or on its side near the bed's edge, while the nozzle is gently directed alternately in

the nose and mouth. Under good illumination the iron mixture should be applied to the diseased surface with a cotton applicator, taking care not to injure the healthy mucous membrane, thus making a point for additional infection. Alcohol, in the form of whiskey or brandy, is the most reliable agent for sustaining the vital forces and counteracting the blood-poisoning. It should be administered preferably in milk, at intervals of two or three hours, in quantities varying from two to eight ounces a day to a child five years of age. The amount, however, must be regulated according to the general condition of the patient, as evidenced by the septic stupor and character of the heart's action. As an internal remedy, tincture of iron is second only to alcohol. It appears to have some specific action on the vitiated condition of the blood, lessening the hyperinosis, and, judging from its action in erysipelas, it may have an antidotal effect on the ptomaines themselves. It should be administered undiluted in glycerine at intervals of three hours. By this means, we get not only its constitutional effect, but its local effect as well, while passing over the diseased surface in deglutition. Mercury has for a long time enjoyed more or less reputation in laryngeal diphtheria. The bichloride seems to be the favorite form, and when given early (1-60 of a grain every hour), the tendency to laryngeal stenosis is lessened and many tracheotomies and intubations are avoided, and those that are done offer a more favorable prognosis. (Jacobi.)

If in spite of our therapeutic agents the pseudo-membrane forms in the larynx, and so far embarrasses respiration as to endanger life, intubation or tracheotomy should be resorted to without delay. All things being equal, statistics show the results of the two operations to be approximately the same, hence our selection will depend upon the surroundings of the case itself, as well as the confidence of the operator in his skill in doing the one or the other operation. It is without the province of this paper to describe the technique of the operation which may be found in any good work on surgery. Of course complications must be treated as they arise, especial watch being kept on the heart, whose failure should be met with such remedies as caffeine, digitalis and strophanthus. Of late much has been written and many reports made *pro* and *con* of the value of antitoxin

serum as a preventive and curative treatment of diphtheria. In its present state of immaturity, most practitioners hesitate to use the serum treatment in private practice. In my opinion serotherapy is destined to accomplish as much in the treatment of diphtheria as vaccination has in variola, and the well will, by its use, be as surely immuned against diphtheria as the vaccinated are against small-pox, and the name of Behring will be registered alongside that of Jenner and Pasteur.

Authorities consulted: Smith, Bosworth, Lennox Browne, Rotch, Jacobi, and various journals.

9½ East 11th Street, Columbus, Ga.

Selections.

A PSYCHOLOGIC STUDY OF THE THREE PROFESSIONS.—Recently some very interesting studies have been made by lawyers, clergymen and physicians, in two of the great metropolitan cities of the country. The object was to ascertain if possible the intellectual status of the different professions, compared with each other. It was assumed that each profession would be found intellectually rising, or perhaps merely holding its own along the levels of the general development. Or, possibly one profession might be at a lower level of comparative growth or far beyond the others in point of attainment. The data from which such studies could be made must include not only a history of each professional man, but a fair estimate of what he had accomplished in his intellectual life. This was ascertained in the numerous biographies and separate personal studies of professional men. A comparison of these histories would give a general answer to the enquiry. The results so far as these studies are very suggestive. Of the three professions, physicians appear to have made the most progress. Intellectually they are rapidly ascending, and the records of their actual achievements surpass all others. Every year more college trained men are entering the profession, and signs of progress along the lines of literature and arts are rapidly increasing. The immensed evel-

opment of scientific research, no doubt has reacted on medicine more than other professions. But beyond this the profession has moved with greater rapidity, following broader lines of inquiry, with less reverence for the teaching of the past. In the studies of physicians in these two cities, a large number have made substantial progress in the discovery of new facts, and the new application of old ones to new conceptions of science. Many of these medical men are scientific students working out and testing new problems of medicine continually,

Next to the physicians comes the lawyers, who seem to be making but little progress. Some of these men as judges have given broader interpretations to the law, and some new technical applications to practical life, but the greatest intellectual strain seems to be to adjust the law to the new conditions of life and living. As politicians and legislators, but little new work is accomp ished, every thing seems to bend to preserve the harmony of the past and present.

In other circles a slow advance is apparent; in literature and the arts they occupy a prominent place, and in humanitarian circles they have barely kept pace with business men. The heavy weight of prestige and theories of the past outweigh and keep down much of the progress in the present.

The clergymen came last in the list. While intellectually, in general culture and scholastic training, they have probably exceeded both law and medicine, yet in real original work they have fallen back in the march of progress. Few rise to the levels of the age in their teachings, or cut loose from the past, but like lawyers, spend a great deal of energy to keep in harmony with both present and past. The clergymen in those cities were very active in humanitarian work, but along old lines. They had contributed freely to the literature of the day, but little or nothing to the new life and new conditions of living. As a class they have not held their own in the march, but had broken up into extremists and doubters. In these two cities are to be found many of the ablest men of the country in the three profession. Yet from records of actual achievement intellectual progress and evolutionary development, medicine far exceeded both law and theology.

While these studies are not complete, and perhaps open to

many sources of error and correction, they call attention to possibilities of attainment not often considered. Doubtless there are many towns of the country where the medical men are as far back in r-al attainments, and are exceeded by both lawyers and clergymen. But the fact remains that scientific rational medicine, as a field for new discoveries that will raise the levels of life and living, offers the widest opportunity for intellectual development. Studies of this character are very practical, not only in giving us high points of view from which to estimate the direction of the real progress, but bringing incentives to the individual life of physicians not obtained in other ways.

The sociologic and anthropologic aspect of medical life furnishes many facts, a knowledge of which would be of great value in many ways.—*Jour. Am. Med. Association.*

GLYCERIN IN THE INDUCTION OF LABOR.—Kossmann considers that the accidents which have occurred in the induction of labor by the injection of glycerin were caused by the drug being used in large doses for hygroscopic purposes and not with the mere physiological object of, as in the rectum, stimulating the unstriped muscle. He has used glycerin injections in two cases with marked success.

The first case was that of a III-para, who had in her previous labors gone four weeks over time and gave birth to a dead child. At the time she came under Kossmann's observation the gestation had lasted forty weeks. The abdomen was very large, and the patient wished for a living child. Five cubic centimetres of glycerin were injected with antiseptic precautions into the cervical canal, and a colpeurynter was introduced into the vagina. In a few minutes powerful pains began, the os dilated, and combined version became possible. A healthy female child was delivered in one and a half hours from the injection. The woman made an uninterrupted recovery.

The second case was that of a multipara, who suffered from enormous varicose veins of the legs, vulva, and vagina, which had so obstructed the last labor that the child was born asphyxiated. Kossmann decided to induce labor on this occasion at the thirty-fifth week. He injected five cubic centimetres of

glycerin in the cervical canal and a colpeurynter in the vagina. Five minutes later the pains came on, version was performed, and the child was delivered with ease. The woman passed through a normal puerperium, and the veins were rapidly reduced in size. He concludes that the injections of this quantity of glycerin into the cervical canal will bring on strong pains without leading to nephritis or any other effect. The method is more rapid and certain than puncture of the membranes, vaginal douches, etc. It is free from the danger of infection which attends the injection into the uterine cavity. The introduction of a colpeurynter into the vagina serves to keep up the pains when they have started, and therefore makes further injections of glycerin unnecessary. Kossmann recommends the use of this method as being, next to simple vaginal douches, the most harmless method of inducing labor.—*Univ. Med. Magazine.*

PERTUSSIS—ITS TREATMENT.—F. Gundrum, M.D., Sacramento, Cal., outlines his treatment of this condition thus: Belladonna, quinine and bromide of soda are the cardinal drugs, and a frequent order and form of medication would be the following prescriptions, furnishing and changing *pro re nata:*

℞ Calomel..... gr. i
Ipecac..... gr. i
Sacch. lact..... gr. xx

M. Make eight powders. Sig: one every hour till all are taken, to be followed by castor oil.

After motion of bowels:

℞ Sodii bromid..... ʒii
Atropinæ..... gr. 1-8 to 1-6
Syr. aurant, or pruni virg. ad. ʒiii

M. S. Teaspoonful every 3 hours, to be continued till pupils are dilated or cough ceases.

At the same time use 2 grains of quinine sulph. in pill, capsule, or suspended in syrup, every two hours until hearing is affected. In two cases cited improvement was marked and paroxysmal cough was controlled in from four to six days. The

three agents, atropine, quinine and bromide of soda are pushed until the constitutional effect is obtained, watching against too great dosage of any if the disease does not yield sooner. The dietary and hygiene of the patient is also carefully looked after. —*Therapeutic Gazette.*

PROPER DIET IN THE PNEUMONIA OF CHILDREN.—An editorial writer in the *Therapeutic Gazette* of October 15, 1896, in an article on the treatment of pneumonia in children, emphasizes the absolute necessity of maintaining, from the beginning to the end of the attack, a definite plan by which nourishment in an easily-digested form is provided for the child. More depends upon the maintenance of the strength, and therefore upon the preservation of its digestion, than many physicians seem to think; and, in addition to leaving written orders for the nurse as to the manner in which medicines are to be employed, the physician should give careful directions as to the means by which the food is to be prepared and the frequency and quantity in which it is to be administered. Care should always be taken to keep the kidneys acting freely by the use of some simple pure diuretic water, to which may be added several times a day a few drops of sweet spirit of nitre. *Universal Medical Journal.*

TEDIOUS LABOR AND RIGID OS.—Put ten grains of tartar emetic in half a tumbler of water and give two teaspoonfuls every ten or fifteen minutes until emesis occurs. This produces free relaxation without diminution of expulsive efforts.—*Munde, in Medical Record.*

A NEW SIGN OF LATENT ANEURYSM OF AORTA.—This is the presence of a systolic sound in the brachial artery, synchronous with the cardiac systole, and sometimes accompanied by an arterial murmur. When heard, and aortic regurgitation can be excluded, a positive diagnosis of aneurysm can be made, even in the absence of all other signs or symptoms. The sound is due to rapid tension of the walls of the only partially filled artery, due to

the sudden impact of blood at the heart's systole. In pure aortic regurgitation the sign is always present; in two out of six cases of aneurysm, the diagnosis was made from this sign alone, four months before the appearance of the recognized physical signs; five were intrathoracic aneurysms, and one abdominal.—GLASGOW, in *New York Medical Journal.*

FETID FEET.—Dr. Frey, in *La Clinique*, washes once or twice a day the plantar surfaces and the spaces between the toes with a 2-per-cent. solution of formol, and employs solution for rinsing inner sole of shoe. Thorough wiping after each washing. Results better than with powders of salicylic acid, curing the bad smelling of feet where the salicylic acid has failed.—*American Medico-Surgical Bulletin.*

DRAINAGE OF THE PERICARDIUM.—Dr. H. Benson Robinson has just reported to the London Pathological Society a case of suppurative pericarditis successfully treated by resection of the sixth rib and drainage. Only eight cases, he says, are reported during this century, five of which were successful. The tube was removed on the sixty-third day and the wound soon healed.—*The North American Practitioner.*

THE TREATMENT OF GONORRHŒA WITH METHYLENE BLUE.—More (*British Medical Journal*, January 16, 1897, p. 140) reports in detail two cases of gonorrhœa and refers to seven other treated by the administration of three grains of methylene blue, together with fifteen or twenty grains of potassium citrate, thrice daily, with the result of cutting short the acute stage and alleviating the patient's sufferings. In the later stage an injection of three grains of alum in an ounce of hot water was also employed thrice daily.—*Medical Record.*

THE FUNCTION OF THE SUPRARENALS.—According to the the author. L. Szymonowicz, we are now in possesion of three facts which throw much light upon the heretofore obscure function of the suprarenal capsules. The facts are as follows;

1. The extirpation of both suprarenals causes a decided diminution of the blood pressure; the pulse becomes smaller.

2. Introduction of suprarenal extracts into the veins produce chief of all a decided increase of blood pressure, slowing and increase of the heart's action.

3. The blood flowing from the suprarenal veins, when introduced into the circulation of another animal, causes the same phenomena as do the suprarenal extracts introduced iuto the blood, but in lesser degree.

As the result of his researches and those of Cybulski, the the author believes we must come to the following unquestionable conclusions:

1. The suprarenals are organs of undoubted neccessity to life, glands with internal secretion.

2. It is their duty (especially the medullary substance) to produce and transmit to the blood a substance which continually upholds the vagus and the accelorator nerves as well as the respiratory centers, and, in all probability, the centers controlling muscular tonicity.—*Arch. f. Phys.*, LXIV, Nos, 3, 4.

GELSEMIUM.—This is one of the best remedies for the relief of "cold in the head;" drop doses of the fluid extract given hourly will usually secure the best possible results.—*Medical Age.*

Editorial.

OUR CENTENNIAL.

The bright open weather that prevailed throughout the greater part of February has enabled the managers and contractors to materially advance their work all along the lines. Buildings already under process of construction have been completed, work has begun on others, and the ornamentation of the naturally beautiful grounds has been materially advanced. The contract for the United States Government Building has

been given out, and it will be ready by the opening day. Work has commenced upon the building that will be devoted to Hygiene, Medicine and Sanitary Appliances and Education. This will be a large and handsome building, with 20,000 feet of floor space, one-half of which will be devoted to medicine, and will be located on one of the most eligible and convenient sites in the whole area, occupying a position between the Auditorium, the Administration, and the United States Government Building.

Dr. J. D. Plunket, Chief of the Department of Hygiene, Medicine, and Sanitary Appliances, has been actively at work, and has the various Sections of his Department well organized, all the members of which are arduous and energetic in their efforts to have the Department second to none in interest, instruction and practical utility. The various Sections and Committees of this Department are as follows:

Section A.—Hygiene and Sanitary Appliances: Dr. E. B. Sangree, Chairman; Henry Marr, M.D. (bacteriology); Jules G. Zwicker (sanitary architecture); P. D. Sims, M.D., Chattanooga; W. G. Rayen, D.V.S. (veterinary); F. A. Dortch, B.A. (sanitary chemist); G. B. Thornton, M.D., Memphis; Jno. W. Ross, M.D., Clarksville; T. J. Mooney (sanitary plumbing).

Section B.—Medical History (Tennessee especially), Literature, Books, Journals, Pamphlets, Statistics, etc.—Deering J. Roberts, M.D., Chairman; G. C. Savage, M.D., S. S. Crockett, M.D., Nashville; E. S. Miller, M.D., Johnson City; D. E. Nelson, M.D., Chattanooga; T. J. Happel, M.D., Trenton; and I. A. McSwain, Paris.

Section C.—Surgical and Medical Instruments, Appliances, Dressings etc.—Charles S. Briggs, M.D., Chairman; Lee Cantrell, Secertary; Theo. Tafel.

Section D.—Drugs, Pharmacy, Pharmacology, and Dietetics intended for the sick—J. Criddle Wharton, Ph.D., Chairman; E. M. Neal, R. C. Gordon and S. O. Barnes.

Section E.—Dental Apparatns, Instruments and Prosthesis—J. Y. Crawford, M.D., D.D.S., Chairman; J. David Herblin, Secretary; H. W. Morgan, M.D., D.D.S.; J. P. Gray, M.D., D.D.S.; Gordon White, D.D.S.; W. H. P. Jones, D.D.S.; D. B. Blakemore, D.D.S.; and R. R. Freeman, M.D., D.D.S.

Section F.—Hospitals, Vehicles and Appliances for Transporting Sick and wounded—John R. Buist, M.D., Chairman; W. H. Witt, M.D.; and Jno. M. Bass, M.D.

Section G.—Physical Development and Condition—Jos. T. Gwathmey, M.D., Chairman; Jno. L. Gordon (athletic clubs and turnvereins); Ellery C. Huntington (schools and colleges); A. W. Barnard (Y. M. C. A. work.

In addition to the many magnificent, grand and handsome buildings already completed, or in rapid process of construction, to be devoted to the arts and sciences, the amusement features will be unusually attractive. We have not space to give them here, but contracts have already been made for "Vanity Fair" far in excess of the "Midway," of Atlanta, and others are now negotiating for space and privileges.

The grounds will be incorporated with special charter, and thorough police surveillance will be maintained; nothing objectionable will be admitted, and the vast multitudes who will attend from all parts of the world may confidently expect one of the most interesting and enjoyable exhibitions of the age.

The hotel and boarding house facilities of Nashville are being largely increased, and will be able to meet any demands made upon them—their heaviest trial will in all probability be made in June, when the United Confederate Veteran Association meeting here will alone bring 50,000 visitors at least.

The street car lines are being greatly improved and extensively equipped, and together with the Nashville, Chattanooga and St. Louis Railroad tracks entering the grounds, will afford every needed facility for transportation to and from the city.

THE TENNESSEE STATE MEDICAL SOCIETY will hold its Sixty-fourth annual meeting in this city commencing Tuesday, May 11th, the usual date having been put back a little over a month in order to afford the members who may attend an opportunity of seeing our Centennial and International Exposition, which will be fully opened and in full tide at that time. An unusually large representation is confidently expected, and we beg leave to suggest that members who may attend commence at once the preparation of papers, reports of cases. etc. There will not only be a large attendance on the part of Tennessee physicians, but in all probability we will have quite a number of visitors at this time from other states, and it is earnestly desired that this venerable organization make the best showing in its long and eventful history.

INDIA INK OR TATTOO MARKS.—Dr. C. M. Swertz, of the Davidson County Hospital, desires to know some method of removing the marks of India Ink or Tattooing by other means than the knife or electricity. J. Nevins Hyde, M.D., in Morrow's System of Genito-urinary Diseases and Dermatology, says that "No treatment for any of these discolorations, after they are once fully formed, has ever been in the slightest degree effective."

If any of our readers have any suggestion to make on this subject we will be pleased to publish it.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N.Y., sole agents.

THE THREE MEDICAL SCHOOLS in this city are now rapidly approaching the close of their annual labors. Extending the curriculum has pushed the commencement season well back into the month of March or the early part of April. The graduating classes will not yet approach in numbers those of preceding years when two courses of lectures were only requisite. This, the second year of the three term system in this State shows quite an increase in the number of graduates in all the schools here over last year; and next year, we can confidently expect a reasonable approach to the numbers of the former requirements of only two years. The two junior classes in all the schools are much larger than last year.

STREET DISINFECTION.—The *Colorado Medical Journal* advises the health authorities of Denver to add hydrag. bichlor. to the water used in sprinkling the streets in order to destroy the multitude of tubercular germs resulting from the expectoration of phthisical individuals resident or visiting the city. It is further suggested that if the corrosive sublimate could not be used in the metallic tanks of street sprinklers formaldehyde might be substituted.

CHIONIA.—I have used Peacock's Chionia and find it a very efficient preparation in hepatic torpor, a condition so prevalent in this region. In one case where many of the well-known remedies had been in persistent use and gave little if any benefit, Chionia combined with small doses of Culver's root placed the patient on her feet in a few weeks, and what is best of all she has had none of the troubles since.

Abrams, Wis. J. C. BANTA, M.D.

THE PHYSICIAN'S VEST-POCKET FORMULA BOOK, published by McKesson & Robbins, will be found very useful to the practitioner. It contains a table of weights and measures, antidotes to poisons, various tables of reference, and a very complete series or tables, showing the composition of foods and alcoholic liquors. A copy will be sent free of charge to any of our readers on application to McKesson & Robbins, 91 Fulton St., New York.

A GOOD MOVE.—The legislature of Kansas, now in session, has before it a bill to punish the crime of rape by emasculation. If it passes, which it is to be hoped for, other states will be apt to follow. Something surely ought to be done by our law-makers to prevent a crime that is of only too frequent occurrence, and one, which more than all others, has invoked retribution at the hands of Judge Lynch. This suggestion originally emanated from the medical profession, and if put into effect, its results will be watched with no little interest.

CLEANLINESS IN CATARRH.—Dr. Edwin Pynchon, in an article in the *Annals of Ophthalmology and Otology*, calls attention to the widely varying formulæ of Dobell's solution given by different authors, and incidentally mentions what is a really practical question in the treatment of naso-pharyngeal catarrh.

Numerous preparations are widely advertised as adapted for cleansing purposes in the nasal cavity, and are possibly of real merit, but the price asked for the product is so exorbitant, that to people of moderate means the expense is a serious factor, while to the poor it is beyond their purse, and in each case, after the prescription has, perhaps, been filled once, they cease its use, and go back to the home remedy of salt and water of varying strength, and usually with disastrous results.

The Seiler's tablets, made by different manufacturers, also vary in strength and composition, and our experience has taught us that several of those on the market cannot be used without causing great smarting, and even pain.

The fluid used in cleansing the nasal cavities in both atrophic and hypertrophic rhinitis, should be of about the specific gravity of the serum of the blood, and this is acquired in the solution advised by Dr. Pynchon, which is as follows:

℞ Sodæ Bicarb.....2 ounces.
Sodæ Biborat .....2 ounces.
Listerine (Lambert's).....8 ounces.
Glycerine.....1½ pints.

One ounce of this formula added to a pint of water, yields a bland and pleasant alkaline solution with a specific gravity of 1.015.

The addition of the Listerine takes the place of the carbolic acid in the original formula, and is a decided advantage, as it imparts a pleasant taste, and is quite as efficacious as the acid.

The common use of Listerine and water should be superceded by the addition of the alkaline solution given, and in the preparation thus made, we have all the advantages of any cleansing agent, and it can be furnished at a price commensurate with all pockets.

AMENORRHŒA.—Dr. C. C. Abernathy writes: "I placed sample bottle of Dioviburnia (Dios) in the hands of a young lady, who had been suffering from amenorrhœa for six months, with instructions to use it and report result. At the expiration of two months she wrote me: "You can safely recommend Dioviburnia, it has entirely relieved me." Encouraged by this gratifying result I procured through our druggist a dozen bottles, and have used them all and more in the treatment of dysmenorrhœa, menorrhagia and leucorrhœa, in all of which there is generally congestion of the womb and ovaries, and I am pleased to say that it has acted well in every case. I shall continue to use it."

LARYNGEAL OR WINTER COUGHS.—Walter M. Fleming, A.M., M.D., Examiner in Lunacy, Superior Court, City of New York; Physician to Actor's Fund of America, etc., in giving his experience in the treatment of the above and allied disturbances, in *The Journal of Nervous and Mental Disease*, submits the following:

"In acute attacks of laryngeal or winter cough, tickling and irritability of larynx, faith in antikamnia and codeine tablets will be well founded. If the irritation or spasm prevails at night the patient should take a five grain tablet an hour before retiring and repeat hourly until allayed. This will be found almost invariably a sovereign remedy. After taking the second or third tablet the cough is usually under control, at least for the paroxysm and for the night. Should the irritation prevail morning or mid-day, the same course of administration should be observed until subdued. In neuroses, neurasthenia, hemicrania, hysteria, neuralgia, and in short, the multitude of nervous ailments, I doubt if there is another remedial agent in therapeutics as reliable, serviceable and satisfactory; and this, without establishing an exaction, requirement or habit in the system like morphine.

Finally, in indigestion, gastritis, pyrosis, nausea, vomiting, intestinal and mesenteric disorders and the various diarrhœas, the therapeutic value of antikamnia and codeine is not debatable. The antipyretic, analgesic and antiseptic properties are incontrovertible, and therefore eminently qualified to correct the obstinate disorders of the alimentary canal."

THE DIET IN CHRONIC DIARRHŒA OF INFANTS.—If the child be under one year of age the diet must not go beyond the range allowed at that period of life. Barley water and whey, perhaps milk, according to circumstances and Mellin's Food, raw meat juice, white of egg or yellow of egg, with water, mutton broth, weak beef tea, is a sufficient list of foods. It is generally asserted that animal broths are deleterious in diarrhœa; used in small quantities cold I have not noticed any prejudicial effect, and certainly the number of stools has not appeared to be increased.—From *Treatment of Disease in Children*, by Angel Money, M.D.

A NEW MEDICAL DICTIONARY is being published by Messrs. Wm. R. Warner & Co., 1228 Market St., Philadelphia, and will be ready for delivery about the 10th of the presenth month. It is intended for the pocket, and will be 6½ by 4 inches in size, containing about 300 pages, with over 10,000 definitions. It will be printed on excellent book paper and substantially bound, and will contain all the latest terms. The price for this little pocket companion will be only seventy-five cents, and from the sample pages we have seen will be well worth many times that amount.

SANMETTO still maintains its high order of excellence, and for urinary, bladder and prostatic troubles grows in favor every day.

THE SOUTHERN KENTUCKY MEDICAL ASSOCIATION will hold its Fifth Semi-Annual Meeting in the City of Hopkinsville, Ky., Wednesday and Thursday, April 14 and 15. An interesting program will be arranged. Accommodations at reduced rates on railroad and at the hotels. All physicians are cordially invited to be present.

B. W. SMOCK, M.D., *Secretary.*

A SMALL HINT, BUT IMPORTANT—Although this is the third number of this journal for 1897, some of our subscribers seem to have forgotten that very important essential—paying for it. On each wrapper is plainly marked the date to which subscription has been paid, and in nearly every one is inserted a small slip giving a statement in full. If you find one this month, my good reader, please stick it in your hat, or put it up somewhere so that you can see it daily until you return it with the *needful.*

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Reviews and Book Notices.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY: Being a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, drawn from journals, monographs, and text-books, of the leading American and foreign authors and investigators. Collected and arranged with Critical Editorial Comments by Eminent American Specialists and Teachers. Under the general editorial charge of GEORGE M. GOULD, M.D. One volume of nearly 1200 pages, profusely illustrated with numerous wood-cuts in text, and thirty-three handsome half-tone and colored plates. Prices: Cloth, $6.50 net; Half-Morocco, $7.50 net. W. B. SAUNDERS, 925 Walnut Street, Philadelphia: 1897.

The design of this work is to give in a compact form an epitome of the new and progressive medical truths or suggestions published during the preceding year. A work which places before the physician in convenient form an epitomization of this literature by persons competent to pronounce upon the value of a discovery or of a method of treatment cannot but command his

highest appreciation. It is this critical and judicial function that will be assumed by the Editorial staff of the "American Year-Book of Medicine and Surgery," in reviewing not only the contributions to American journals, but also the methods and discoveries reported in the leading medical journals of Europe, the work being thus made international in character.

The great success of the first volume of this work justifies the belief that there will be a still greater demand for the 1897 edition, which shows marked improvement in the typography and general arrangement of the work; and, although some seventy-five pages larger, is offered at the same price. The entire field of medicine and surgery is fully covered, and every department is replete with interesting reading; and it is a most admirable production from beginning to end, making a work of reference of the highest order. To any practitioner who wishes to keep fully up with the times, it will prove invaluable.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Vol. X.—Diseases of the Nervous System. WILLIAM WOOD & Co., New York: 1897.

Delay in obtaining articles from foreign authors has necessitated the bringing out of Vol. X. before Vol. IX. of this magnificent work. Vol. IX., we are informed by the publishers, will be ready in April.

Each succeeding volume of The Twentieth Century Practice but increases our estimation and admiration of this grand addition to medical literature.

In the volume before us, Diseases of the Brain and Diseases of the Membranes has been entrusted to Joseph Collins, M.D., of New York, Visiting Physician to the Hospital for Nervous Diseases; Attending Physician to St. Marks' Hospital; and Instructor in Nervous and Mental Diseases in the New York Post-Graduate Medical School.

Intra-cranial Hemorrhage, Embolism, and Thrombosis (Apoplexy and Hemiplegia) and Neurasthenia, to Chas. L. Dana, M.D., of New York, Professor of Nervous and Mental Diseases, New York Post-Graduate Medical School and Dartmouth Col-

lege; Visiting Physician to Bellevue Hospital; and Neurologist to the Montefiore Home for Chronic Invalids.

Chas. Samson Fèrè, Physician to the Hospice de Bicetre, Paris, France, has most ably considered the subjects of Hysteria, Epilepsy, and the Spasmodic Neuroses.

Tumors of the Brain are most excellently elucidated by Dr. Bernard Sachs, of New York, Professor of Nervous and Mental Diseases, New York Polyclinic; Consulting Neurologist to Mt. Sinai Hospital and the Italian Home; Neurologist to the Montefiore Home for Chronic Invalids.

The Disorders of Speech have been entrusted to Howell T. Pershing, M.D., M.Sc., of Denver, Colorado, Professor of Nervous and Mental Diseases and Medical Jurisprudence, University of Colorado; Physician for the Insane, Arapahoe County Hospital; Neurologist to St. Luke's, St. Anthony's and St. Joseph's Hospitals.

The Disorders of Sleep have been under the care of Dr. Sanger Brown, of Chicago, Professor of Medical Jurisprudence and Hygiene, Rush Medical College; Attending Neurologist to the Cook County Hospital.

The advances made in the study of these diseases in the latter part of this century have been most remarkable; the architecture and physiology of the brain are to-day, owing to the progressive work of neurologists, histologists, and the school of experimentists, moderately well understood; and this work is the result of a careful review of current medical literature and the personal observation of the able authors engaged in its production.

THE DISEASES OF INFANCY AND CHILDHOOD. For the Use of Students and Practioners of Medicine. By L. EMMETT HOLT, A.M., M.D., Professor of Diseases of Children in the New York Polyclinic; Attending Physician to the Nursery and Child's and the Babies' Hospitals, New York; Consulting Physician to the New York Infant Asylum, and to the Hospital for the Ruptured and Crippled. With Two Hundred and Four Illustrations including seven colored plates. New York. D. APPLETON & Co. 1897.

The rapid advance made during the past few years in this department of medicine is the author's justification for this work, which he does not claim as a complete work, completeness in so broad a subject being impossible—yet we can say unhesitatingly

that it is as complete as could well be made in even so large a volume. The work, as its name indicates, is limited to Infancy and Childhood, and is not burdened with a rehash of those conditions pertaining to older life obtained from standard text-books and authorities.

The author, in his preface, says: "The pathology and symptomatology of disease in children who have passed their seventh or eighth year really differ little from those of adolescents or young adults. It is in infancy and early childhood only that the peculiar conditions exist which separate pædiatrics from general medicine, and entitle it to be ranked as a separate department."

A considerable amount of space has been given to pathology and the description of lesions, owing to the limited attention usually given to these processes as pertaining to early life, and such knowledge being absolutely indispensable to a correct clinical understanding of disease at the period under consideration.

The author's eleven years continuous hospital service with young children has given him unusual advantages for obtaining a correct knowledge and thorough understanding of their diseases, and the work shows throughout that he has availed himself to the utmost of his opportunities of observation and investigation.

In considering the subject of treatment the author places considerable stress upon diet and hygienic measures, in many instances far more important than the administration of drugs; and the space devoted to nutrition and its derangements is of especial value. In both prophylaxis and treatment of that terrible scourge, diphtheria, strong ground is taken in behalf of antitoxin. His differentiation between diphtheria and pseudo-diphtheria is worthy of careful study.

Take it all in all, it is the best work of its kind we have seen, thorough, clear, and as complete as could be made, lifting pædiatrics out of the slough of tradition and placing it on the high grounds of scientific observation and study; it is a book for the every-day needs of the physician who practices among children, or the student who expects to do so. The numerous illustrations are of high order, as is the general typographical and mechanical execution of the work. Many of the illustrations are original, and all serve to materially elucidate the text.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

CHARGE TO THE GRADUATING CLASS OF THE MEDICAL DFPARTMENT OF VANDERBILT UNIVERSITY.

BY RICHARD DOUGLAS, M.D.,

Professor of Gynecology and Abdominal Surgery.

In obedience to the time-honored custom, I appear before you as the representative of the Faculty of the Medical Department of Vanderbilt University to bid good-bye to our graduates as students and embrace them with a cordial welcome into the profession. The occasion is one which excites in all the tenderest emotions, but to the senior student it is something more than an event; it is an epoch in his life. The ceremonies here performed are strongly suggestive of that civil and religious service which unites man with woman. After three years of devoted wooing your hopes are at last consumated and you are to-night wedded to your profession, and the solemnities of this, the bridal hour, are of the greatest import. We, the Faculty, your brothers, are

first to offer you congratulations, and I as their representative hope to express in pleasing words our interest and pride in you.

Were I to follow the custom usually observed upon such occasions my words at parting would carry with them advice as to future conduct, rules of life, elements of success, etc. These are questions which naturally appeal to and concern the young practitioner, and their importance has not escaped us. We have spent much time in our regular work in instilling into you our best thoughts and highest ideas, and we trust we have successfully inoculated the fertile soil of youth and enthusiasm, which should abound in each of you, with the spirit of resolution, determination, hope and loftiest ambition.

From to-night your position materially changes. Responsities hitherto unknown now crowd themselves upon you. You are no longer directed in your course by a solicitous and experienced professor, you have weighed anchor and are fully launched upon the vast professional sea. There, be assured, the waters are not smooth nor glittering with a silvery sheen. You will encounter upon your voyage innumerable breakers, storms of public opinion will dash you hither and thither, your bark will be cast upon the shoals of disappointment and despair; and, also, I regret to say, some of you will sink beneath the wave. But ye of sturdy hand and true heart and of unfailing resolution will surmount the difficulties and glide safely and smoothly into the harbor of professional success.

In any crisis in life a proper estimate of ones capacity to meet emergencies surmount one half the difficulties. What national turmoil would we be in to-day had not Mr. Cleveland and Mr. Carlisle known the resources of the treasury of the United States? So must you, gentlemen, take an inventory of your mental stock and know exactly what available means you have at your command.

It is hardly necessary for me to refer to the years of laborious study that you have spent preparatory to undertaking the course in medicine. You are fresh from the lecture room and laboratories. In these workshops of science you have delved in the mysteries of life in health and disease, and we present to you this diploma expressive of our approval and attesting to your skill and proficiency. I am pleased to say you are not stuffed

with the ideas of individual professors; you have not learned by rote a lesson that you are expected to recite or follow in the practice. Your accomplishments comprise a knowledge of the fundamental branches of the science, learned in the dissecting room by actual work and observation, evolved in the chemical laboratory by experimentation, applied in the clinic and at the bedside, and finally proven in that crucible of our science, the laboratory of bacteriology and pathology. All of this is a matrer of special congratulation to you, for inasmuch as it offers such opportunites for gratifying "that love of knowledge which is one of the special attributes of man." Advance as we will in the science of medicine, there is ever open to us a wider and more charming region of thought. As a powerful telescope reveals the grandeur of the starry heavens, beyond in illimitable space there are beauties yet unexplored, and the pride of knowledge is ever curbed by the consciousness that even of the simplest thing *all* is not yet known.

The combined wisdom and skill of your professors has been transmitted to yon. This is indeed a rich inheritance, and as heirs to a vast estate it devolves upon you, in obedience to the laws of God and man, to improve and beautify this princely possession.

Your diploma appears very broad to you to-night, but let me warn you that from this hour unless you zealously and continuously apply yourself, your list of accomplishments will grow miserably small. Therefore you must not imagine that you have learned all that our art affords. You are to-day safe practitioners of medicine, and may I not say to this audienee without hesitancy or fear of denial, that we believe you to be better prepared to battle with disease than many whose names are known to fame; and we commend you to the public as fit exponents of our science, worthy and representative products of this great University. We have not dumped upon the community men unfitted for their work. You are physicians in the truest and highest acceptation of the term, ready to assume a most important part in the affairs of life. Your duties and obligations elevate you to the first ranks in citizenship. You are an integral part of the great body politic, an essential element in the composition of the government. There is unquestionable solid-

arity existing between the government and the progress of our science. The growth and development of one materially influences the strength and power of the other, and it is particularly in this connection that I wish to address you.

Far be it from me to infuse you with a vain-glorious conceit; yet, a full comprehension and appreciation of your position as members of the profession is most appropos. Is there a class or body of men engaged in any work evincing such noble devotion and self-sacrifice in the interest of society as that shown by the physician? His life stands apart as something higher and better than the common herd. Guided by the revelations in the several departments of our science, the profession of medicine has assumed a position undeniably grand with relation to the public. We are no longer mere healers of the sick, a circumscribed sphere assigned us by Plato, in his ideal republic; a boundless field of usefulness lies outstretched before you. I grant you that there is some personal satisfaction in curing a babe of a fit, or restoring to a mental balance a foolish woman with hysteria, or relieving a pompous plutocrat of his gout, but this is a limited sphere of action and deals with individuals, for which you are abundantly prepared; and it is true out of this work you are to earn the nasty shekles so essential in this world for ones personal comfort. Do not understand me as underating the standing and worth of the working, the practical doctor. He is a much enduring, serving man, for love of humanity and in humble immitation of Him who walked the shores of Gallilee, his life is one of self-inflicted abnegation, he is a stranger to the comforts of home, an alien to society. It is true he receives that rich reward, the gratitude, love and appreciation of his patients. His gratification in the practice is limited only by its imperfections, and reflections come to him only when he feels the limitation of his power, when all efforts are fruitless and art impotent to save. But after years of unceasing toil he dies, much beloved and respected, but he dies all the same. It is a beautiful sentiment: "To live in hearts we leave behind is not to die," yet it is too poetical to satisfy the truly ambitious. Rather give to me ever so small a niche in the temple of fame. Therefore, if you would attain permanent eminence in your profession and live in history, you must direct your thoughts into

wider channels than the application of curative measures. You must formulate, devise or discover something that will be of value to generations yet unborn. Any jack-leg carpenter can repair a rickety shanty, yet only a Bramante can conceive a St. Peters.

Within the last decade the search-light of science has been directed upon that dark mystery—the cause of disease. And now the aim and purpose of modern medicine is to prevent disease. Manifestly a suicidal policy for us, yet it is nevertheless the goal of every true physician's ambition; and believe me, we have full confidence that the day is not far distant when epidemics will be controlled and all contagious diseases will be circumscribed and held in abeyance. This, gentlemen of the graduating class, is a mighty problem and to its solution I commend you.

There is an abiding prejudice in the minds of the public that the degree of doctor of medicine stands for naught. He is neither a man of science, education, or refinement, such is the opprobrium brought upon us by grafting the spirit of commercialism upon our profession, and not even the marvelous discoveries and new truths proclaimed by worthy votaries can wholly redeem us from this stigma. And I lament to say the profession itself is largely responsible for the scorn and slurs heaped upon us by an outraged people. I do not propose to perplex you, my kind audience, with the problems of medical education, but I must in passing say, that for the last score of years medical colleges have blossomed out all over the country, and the honorable degree of doctor of medicine has been handed out over the counter for a half a hundred or so of dollars, and ten or a dozen months of perfunctory study. Is it a wonder then, that even the profession itself entertains pity and scorn for the helpless individual so cast upon the public when he is confronted with the greatest of all problems, life and health? Men more avaricious than ambitious, foolishly vain rather than wise, proud in their own conceit, unite themselves into a so-called faculty and liberally advertise that they are prepared to manufacture doctors at a very low rate. These men are wofully devoid of all consideration for humanity, possessed of a voracious appetite for gold and notoriety, they receive without discrimination into their mills the crud-

est material and stamp the product with a blazing M.D.; and henceforth to the public he is known as Doctor, sometimes, oftener as "Doc." But this creature truly never enters the pale of professional respectability. He is in our eyes a quack, a charlatan, the embodiment of stupendous ignorance; and his medical career, fortunately for humanity, is generally a very brief one. Embued with a spirit of trade he soon drifts into professional commercialism and barters the science he profanes for selfish gains. But the days of reformation are at hand. Burning under the shame of a just reproach it has aroused in the minds of all true savants a determination to banish from the profession such parasites. To this end every respectable institution has elevated the requirements for entrance into the study of medicine, prolonged the course of study, established a graded system of instruction, and in every instance raised the fees. But small encouragement is offered now to those men who seek the degree of doctor of medicine merely as a device for trade.

The Nineteenth Century will pass into history renowned for its inventions, discoveries and progress in science, and yet we are constantly reproached that medical science has not kept pace with the progress of the day. This is not true of the science in the abstract, but for the reasons emphasized, the deplorable system of medical education, it can be truly said of some of its individual members. To me it is an unanswerable riddle why the American people, so ambitious for fame and honor, so proud of their country with its rich resources, should have remained indifferent to this most essential of all sciences. This want of healthful sympathy on the part of the government, in a great measure accounts for our seeming lethargy. Ignored and disregarded by the State, spurned and unappreciated by its dignitaries, we have, in a dignified way, persevered in silence, labored heroically, not only against disease, but as a united profession our energies are concentrated in one direction, to overcome the cause of disease. And how is this effort on our part received? What acknowledgement from the public encourages us? It is not the question of personal reward nor the position we take in titles and honor; these things are probably less thought of by us than any of the workers in the commonwealth; but the question is, are we necessary to the State, and if so,

does the State admit its obligation? Every other science and art meets with liberal voluntary patronage, but how few think of medicine save when in distress. If we seek to protect the public against scoundrels by prohibitive legislation, politicians fight us at every quarter, and so amend our proposed regulations as to practically nullify them. The community encourages quackery and fraud, which we seek for your sakes alone, not ours, to overcome. The public press prints even as editorial matter, advertisements of quack medicine and systems. If we seek to elevate the standard of medicine and ask assistance of the state or city, a spirit of economy seems to possess our healthy legislators at once. The State of Tennessee and County of Davidson, without hesitancy, spends hundreds of thousands of dollars in palaces for her poor and mansions for her criminals; but has ever a dollar been given in this city or State to the cause of medical education? The ablest men of our State have for years devoted their time and energies in the cause of public health. With what encouragement? The noble State of Tennessee appropriates $4,000 to her health department. Think of it; $4,000 to protect the health and lives of a million and a half of souls, she generously donates this ponderous sum. Why it would scarcely satisfy the auric appetite of a railroad commissioner with free silver proclivities. She holds her people of less value than her cattle, for she appropriates $5,000 to protect the cattle from Texas fever.

The laity is exceedingly skeptical upon what we regard as established facts of our science. Not infrequently we meet an otherwise intelligent man who refuses vaccination, yet it has stood the test of a hundred years, and the mortality of small pox reduced forty-nine per cent. It is a difficult task to drum it into the heads of an indifferent public that an infected dairyman may disseminate scarlet fever, or that an epidemic of typhoid fever had its origin in an impure water supply. How few of the people believe us when we tell them that the meat they eat and the milk they drink bears in it the germ of that horrible disease, consumption, which is responsible for at least ten per cent. of the general mortality; and how much more skeptical they are when we tell them that by proper inspection of this meat and dairies this disease could be in a large measure over-

come. It better suits the aim and end of the politician to inspect coal oil and fertilizers. He will trust to killing the bacillus tuberculosis by boiling his meat, and will drink beer rather than milk. Do you ever stop to consider the individuality of your Boards of Education? Clever enough gentlemen they all may be in a business way, and if guided by a wise superintendent may outline a very proper course of study for the pupil; but is there one of them capable of considering in an intelligent way the health of our little ones? Do they know aught of sanitation, the laws of ventilation and sewerage? Have they the slightest conception of the far-reaching, penetrating powers of infection and contagion? These are questions in which they should be guided by the medical man, they are problems which rightly belong to our science.

A short time since our recently-elected governor pardoned some ten or twelve convicts hopelessly afflicted with consumption. A friend of mine, disposed to criticise and carp, remarked that "Our Bob" was at his old tricks again. Whether he acted under the influence of sympathy, or upon the suggestion of the prison physician is immaterial, the governor's act was wise and humane. Fifty per cent. of all deaths in prison are due to tuberculosis, and was it not in the interest of the thousand remaining prisoners to protect them from the danger of this contagion? It is an open question, if the prosperity of the state would not be enhanced more by imprisonment of consumptives rather than criminals. Does it not appear as a self-evident fact that society and the individual should be as much interested in the progress of our science as the physician himself? Yet in the South the advancement of medicine is in many ways obstructed. If a dog or a cat is caught for the purpose of scientific experimentation we are in danger of being detected by some sentimental anti-vivisectionist and prosecuted for cruelty to animals. What one of you, my fellow-citizens, would be willing to have a doctor set your broken limb if he knew nothing of the shape and size of the bone? Or would you feel safe to have him proding among your vitals if he did not know the location and mechanism of the separate organs? Yet how do you expect us to know these things without dissection of the human body? What provision does the law make for this necessary knowledge? You do

its numerous details by the opening day; and the more than 10,000 feet of floor space will be filled with important and interesting appliances of Hygiene and Medical Science.

not even grant us the criminals and unclaimed paupers, but you place us in a position where the law is violated in order to acquire science to serve you. For your sakes body snatching has become a necessity.

My only object in referring to this gruesome subject is to acquaint the intelligent public with one of the minor difficulties encountered in the study of medicine. Other sciences are liberally supported not only by public contributions and endorsement, but by appropriation of the general funds. The American citizen, ever famed for his generosity and liberality, has unstintedly and gladly contributed to institutions of learning and to some of the special sciences. Millions have been expended to further the science of Astronomy, but let me remind you that "There are also celestial bodies, and bodies terrestrial; but the glory of the celestial is one, and the glory of the terrestrial is another," and upon the terrestrial depends the glory and power of our government. A hundred million contingent fund is held in reserve by the United States to meet emergencies. Financial panics, famine and war are all anticipated, but in the calculation of these, all wise financiers, have they not left out of consideration in a great measure "the financial value of life and health, the dire expense of disease and death?" I conceive that the greatest good can be done for science and humanity by the endowment of medical schools with sufficient money to conduct their instruction independent of tuition revenue; strip them at once of their commercial character and enable them to build and equip laboratories for experimentation and the study of preventive medicine, and require of all students admitted high literary attainments. In this way our science will be taken out of its questionable position and the cause of humanity will be ably served.

Thanks to the munificence of the Vanderbilt family, and particularly to its distinguished representative in our Trustees, Mr. Cornelius Vanderbilt, this University is in a measure able to meet these conditions. Yet sufficient funds are wanting to conduct the institution upon that high plain which is the aim and ambition of our chancellor. In the choice words of that beautiful medical writer, Dr. G. M. Gould, let me encourage medical men, and particularly you, our graduates, to employ every means in your power: "To spread abroad throughout the

community the knowledge of a truth awful in its significance and absolute in its application, a truth of which legislators and philanthropist are outrageously ignorant, or scornful—the truth that there is no duty so imperative and no self-interest so evident as the duty and self-interest of endowment of institutions of preventive and didactic medicine." What is the advantage of our numbers, or the purpose of our medical organizations, or, indeed, the benefit of our knowledge of the wants of mankind and of the modes of their relief, if we cannot from time to time assert our claims as councillors to the state?

Then, gentlemen of the graduating class, let my closing words be the expression of an earnest hope that each one of you, according to his opportunities, will exert himself not only to practice honorable and legitimate medicine, but co-operate in the advancement of medical education and the elevation of our science. And be assured that where ere your lot may be cast, your Faculty wishes you the fullest success, the richest rewards, the highest honors.

SERUM THERAHY.*

BY W. B. YOUNG, M.D.

Professor of Gynecology and Adominal Surgery, Sewanee Medical College—Medical Department University of the Soulh.

Mr. President and Gentlemen of the White County Medical Society:—I trust that you have not and do not now expect from me anything original upon the subject of serum-thereapy. It would be egotism personified, presumption and audacity beyond the patience and forbearance of an intelligent body of medical men for me to attempt such a thing.

Original work along this line can be accomplished only by scientific men who have had much laboratory and clinical experience in the best equipped hospitals. This I have not had, and, therefore, all I wish to present for your thoughtful consideration to-day is a collection or compilation of the work of our

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*Read at a meeting of White County Medical Society.

most reliable men, in as brief and intelligible manner as I possibly can.

You must pardon me for giving what I consider the clearest definition of a few terms directly connected with my subject. My reason for so doing is that, on account of the ambiguous meaning given by some authors, the use of these terms becomes very confusing to the hearer or reader. Duane, in his late dictionary, gives the following definitions.

Toxine.—"A poisonous base product by the action of bacteria upon organic substances; a poisonous ptomaine." *Anti-toxine.*—"A substance present or generated in the body, which neutralizes the action of poisons introduced or generated there." *Immunity.*—"The state of being immune; exemption from disease." "Immunity from any disease may be *congenital*, owing to individual or racial pecularities; or *acquired*, owing to changes set up in the system by a previous attack of the disease in question or of a modified form of it produced artificially by attenuation of its *virus*." By the term *serum-therapy* we mean the injection of the blood-serum of certain animals who have certain anti-toxines in their blood, into certain of the lower animals or man, for the purpose of neutralizing certain toxines, with which the injected animal is poisoned.

Speaking of immunity, or exemption from disease, I have only to call to your mind certain individuals of your acquaintance, who have never had measles, although they have been exposed to the contagion time and again under the most favorable opportunities for taking the disease. There is in their blood a substance which we call congenital anti-toxine, which prevents the germ from taking hold of their system. You have noticed this about other persons in certain other diseases, as diphtheria, scarlet fever, typhoid fever, etc. Individuals who do not contract these and other diseases although duly exposed—this is congenital immunity. Now if a person has measles once they are not subject to it again. Why this? Because while suffering from the attack of measles there was generated in the blood of the individual a substance which we call measles-anti-toxine, which remains in his blood for years, and prevents him from a second attack. This individual has thus gained an acquired immunity, or exemption from measles.

Scientific men while revolving these facts over and over again in their minds, began to reason along this line of thought: If this man has a substance in his blood which prevents him from contracting measles, why can not we render an individual immune or exempt from the same disease by injecting the blood of the exempt man into the system of the man who has never had measles; or, in other words, immunize him, giving to him artificial protection. They hoped to gain this upon the same principle that Jenner vaccinated the boy to prevent him from having small-pox.

From the results of such sound reasoning and much experimental work, they gave us the "Serum-Therapy." A theory, gentlemen, that has come to stay. Without doubt it is the therapy of the future. We may laugh at the germ theory of disease, and ridicule with effective sarcasm to our heart's content, if we wish, the idea which upon first thought seems so absurd; that is, that we are carrying around with us every day in our blood and tissues antidotes to every poison to which the human family is heir; but, gentlemen, it is nevertheless a truth; figures are facts and can not lie.

In going over the diseases in which anti-toxine has been used I shall take almost the course given by Dr. John Rurah, in articles in the *Medical News* of November 14 and 21, 1896.

Diphtheria.—You are well aware of the fact that the greatest advances in serum-therapy have been made in treating diphtheria. I think it is not amiss before giving the results of the treatment to give the methods by which the antitoxine is obtained. So I have selected the method used by Parke, Davis & Co., which is given in the February number of the SOUTHERN PRACTITIONER. It is in brief, as follows: "First a culture medium is prepared by adding bouillon to blood serum, and then coagulating the mixture; this is known as Lœffler's blood serum. The diphtheria germs are secured by passing a sterile swab over the false membrane, and the swab is then passed over the blood serum and the tube containing the now infected serum is closed with a cotton plug, and put into an incubator where it can be left at the body temperature. After a few hours small colonies appear on the surface of the serum and the microscope is used to determine if the Klebs-Lœffler bacillus is present, and if so,

if it is free from other forms of life. If it is a pure culture, small colonies are picked out and transferred to fresh serum and replaced in the incubator.

These growing germs are the seed used for producing the toxine; they are planted in the sterilized beef bouillon. The germs then grow rapidly, and produce or secrete toxines which are retained in the bouillon. A small amount of a preservative is added, and it is then filtered through unglazed porcelain, which retains the germs and all foreign bodies, leaving the solution clear. This solution of toxine is then injected into the jugular vein of a horse, and, as Dr. Haughton puts it, "we must now stand aside and allow the remainder of the miracle to be wrought unseen? The horse's blood now contains an antitoxine which destroys the toxine we have been putting in it. The dose is repeated until, in the course of a few months, a horse can stand without injury a dose several hundred times stronger than one that would have killed him at the beginning of the treatment. Our horse is then our laboratory, but Nature has yet kept her secret as to how the antitoxine is produced. All we have to do now is to secure the blood from our patient friend, remove the clot, filter, sterilize and preserve the serum, and we have the result, a package of anti-diphtheritic serum, and we are ready to go on our life-saving errand."

You will observe, gentlemen, that in immunizing the horse they do not inject the germ, but simply the toxine; this is different from the methods of preparing anti-streptococcic serum, where they use both the germ and the toxine. They have heretofore used the fluid, but the last announcement of Behring is that he can furnish the antitoxine in solid form. This is a great advance, for it then can be preserved much longer, easier carried, and last, but not least, must of necessity be much cheaper. For physicians being at the distance we are from large cities, it costs to obtain it at least $5.00 for a maximum dose. In the *Medical News* of December 26, 1896, and the two following numbers a most elaborate and accurate report of "The use of antitoxine serum in the treatment of diphtheria under the supervision of the New York City Health Department, with a resume of the published report, on this subject, by Herman M. Biggs, M.D., of New York, Pathologist and Director of the Bacterio-

logical Laboratories, New York Health Department, and Arthur R. Guerard, M.D., of New York, Assistant Bacteriologist." He says: "It is hoped that such a compilation of the results obtained by a large number of the best scientific and clinical observers in all parts of the world, from a thorough trial of antitoxine for a period extending over two years, may be of use and interest, not only in demonstrating the value of the remedy, but also in advancing a still more extended application of what may now be confidently affirmed to be a specific against one of the most terrible diseases with which we have to deal. * *

"In reviewing the subject of the antitoxine treatment of diphtheria it will be found that its value has been tested chiefly in two ways: The first is by a study of statistics which show the absolute mortality in cities and hospitals before and since the introduction of antitoxine and the comparative mortality of a series of cases treated by antitoxine with that of similar series treated previously, or simultaneously, in other ways: the other is by the clinical method, the observation of the effect of antitoxine upon the course of the disease." After summing up the average in a number of statistical reports he adds: "Thus put to the severest test, selecting only the worst cases as was often done intentionally for the purposes of control, and to determine the value of the new remedy (though occasionally it was an unfortunate necessity, owing to the lack of antitoxine, as some reports show, which compelled a forced interruption of the antitoxine treatment) there is still a difference of 50 per cent in favor of the antitoxine treatment. Surely no effect of climate, or season, or "genius epidemicus," or any of the various theories brought forward by the opponents of antitoxine, can explain the difference in these results. He speaks of the clinical side in the following words: "Regarding the value of the evidence as to the efficiency of the remedy based on clinical study, this, of course, depends upon the confidence we place in the opinions formed by the individual observers. But when the opinions, expressed by many of the best clinical observers in Germany, Austria, France, England, and America, etc., are almost unanimously in favor it; and when we consider that the majority of these men, if not absolutely opposed to the new treatment, were very timid and cautious in applying it, and have reached their

conclusions only after the most convincing proofs based on practical results, it would seem that there was no longer any reasonable grounds for refusing to accept the opinions of the vast majority."

I have now given to you about all I know in regard to the uses of the antitoxine in the treatment of diphtheria after once well developed, and I wish in a few words to speak of its work in preventing a person from taking the disease, by injecting it into his blood and then allowing him to become exposed to the virus. In the future this will be its great work, to be used as a prophylactic. "An ounce of preventative is worth a pound of cure" is an old adage, the truth of which can be verified most strikingly in the antitoxine. The immunizing, or preventative dose is much smaller than a curative dose.

Prof. Biggs, in the same report above referred to, makes this statement in regard to this future of antitoxine: "According to thirty-five published reports, of which this is a summary, there are 17,516 persons, children and adults to whom immunizing injections of antitoxine have been given, with the result that, though exposed to infection from diphtheria in families and institutions, and during epidemics when the disease was raging, only 131 of those immunized were attacked later, and of these 129 were mildly affected (109 within thirty days, and 20 after a month) and recovered; while only two died of the disease, one within and the other after thirty days from the time of the injection."

Gentlemen, these results are simply brilliant. Who can of antitoxine speak evil? "Evil to him who evil thinks." Prof. Virchow, in speaking of the reasonable showings of certain statistics on antitoxine treatment, says: "All theoretical consideration must give way to the brute force of these figures, and I consider it the duty of every physician to use a remedy giving such clinical results." One of the great beauties of this wonderful remedy is that it is harmless even in the heroic doses. Only some slight and temporary effects are described as having occasionally resulted from immunizing injections.

The above, gentlemen, in regard to antitoxine, is gleaned from several journals, but I wish to ask your indulgence until I give my experience with it in treating one case of what I believe to have been diphtheria.

The child was between two and three years old, well developed, good family history, etc. Ten days after reaching Bon Air from some point in Georgia, it was seized with high fever and sore throat, soon afterward followed by a scarlatinous rash. My first attention was directed to the rash, which I decided was genuine scarlet fever. At my next visit the mother asked me to look into the child's throat; when I did so I found on each tonsil a dirty, greyish-white membrane. Within twelve hours it was upon the uvula and soft palate. I then pronounced it a case of scarlet fever complicated with diphtheria. It had most every prominent symptom of diphtheria, which is not necessary here to give. Drs. Richards, our worthy president, and Greer, of Briceville, Tenn., saw the case with me. Dr. Greer agreed with me in my diagnosis, and I think Dr. Richards did, but he is here to-day and can speak for himself.

Having just read Prof. Biggs' report in the *Medical News*, and having noticed what the great clinician, Prof. H. C. Wood, of Philadelphia said that, "There is no reason at present for believing that antitoxine in moderate quantities does any harm when the child has not diphtheria, when, therefore, any case presents the clinical aspect of diphtheria, antitoxine should be used at once." And that our learned, L. Emmet Holt, of New York said, "that antitoxine prevents further development of the specific bacilli; and also neutralizes the toxine already present in the system," I determined to give this child the benefit of the new remedy, so I immediately telegraphed Demoville & Co., of Nashville to send me by mail enough diphtheria antitoxine to treat one case of diphtheria. They sent me 2,000 units of serum, which I proceeded to inject in the following manner, assisted by Dr. Richards. We boiled the syringe, and washed off the abdomen of the child with bichloride of mercury, 1-1000. Then I injected under the skin of the abdomen about 1500 units, which required several syringes full. This was done about 6 o'clock in the afternoon. That night for the first time the child got some rest and sleep. Next morning about 10 o'clock the temperature was one degree lower and the child resting well. The membrane had not spread any more in the throat, but still remained. I then gave the other 500 units. By evening child still better and membrane nearly all gone. She continued to improve until full convalescence was established.

Now was it diphtheria? If so did the antitoxine cure the child? In answer to both questions I am frank to confess I do not know. But I firmly believe it was, and that the remedy did the work. There is one fact I wish to call your attention to, and that is this, that this is the first case to get well in and around Bon Air out of six or seven sporadic (?) cases of diphtheria which have been seen with me by Drs. Breeding, Richards, and Greer. If this case was not diphtheria the others were not, if it was, so were they. This one got well, the others all died. Gentlemen, you can take the case for what it is worth, and in conclusion, on diphtheria, I will say, that I shall always in the future use diphtheria antitoxine in just such cases.

Streptococcus Infection.—The developments under this head are most interesting to the surgeon and obstetrician. Streptococci are the causes of various forms of septic intoxication, as in surgical fever proper, puerperal septicæmia, etc. It occurs also in many of the mixed infections in cases of pneumonia, diphtheria, typhoid fever, tuberculosis, etc. Marmorek made the first announcement of a practical streptococcic serum. He reported quite a number of cases successfully treated with its injections. The promotion of the antitoxine for streptococcus-injection is a little different from that of most other antitoxines. Dr. Chas. T. McClintoch, of Ann Arbor, writes to Dr. C. C. Fite, of New York, the following description of its production. "As regards the difference in methods for producing anti-diphtheritic and anti-streptococcic serum, I may say in general that the streptococcus, like a number of other germs, does not readily give off its toxine to the surrounding liquid. If you want to get the toxic properties of the germ, you must take its own protoplasm.

On this account we are compelled to use the germs themselves in order to immunize an animal. The filtered toxines are not very powerful. This is the essential difference between the two materials. This serum has been very successfully used in the treatment of erysipelas, the mortality in most of the hospitals has been reduced from 4 and 5 per cent. to 1 and 1½ per cent. It has also been used with some excellent results in post-operative peritonitis. Quite a number of cases have been reported of puerperal septicæma, treated by this serum.

In an article in the *Medical News* of November 14, 1896, Dr. John Rurah, of Baltimore, Md., gives the following description as a clinical picture in favorable cases:

"The cases injected were usually those in which quinine and intra-uterine douches had proved of no avail. (Note the kind of cases it has been tried on.) After the first injection there was a fall in temperature, and a great improvement in the general condition of the patient. The convalenscense had been of but two weeks duration, and attended by no discomfort."

The serum is absolutely harmless—a beauty of all the blood-serums. It is now under thorough trial in many of the largest hospitals, both in Europe and America, and its perfection in the near future I do not doubt.

Tetanus.—The discovery of the anti-toxine of tetanus was about the time the anti-toxine of diphtheria was given to the profession. The methods by which it was discovered and brought to its present state of perfection (thought not yet perfect) was very similar to the step taken to obtain diphtheria anti-toxine.

Inoculations were first made and immunity produced in the rabbit by Kitasato, in 1891, and later by Behring in the horse. He succeeded in so immunizing the horse that its blood was very anti-tetanic. Later observers have succeeded in precipitating the anti-toxine from the blood-serum by means of alcohol, and so obtain it in a dry form. Sternberg, of Washington, tells us that it has been used successfully in eleven cases. As to its curative powers, however, we can say but little, for it has only been tried in such a limited number of cases; but every investigator acknowledges that it has valuable immunizing powers, which forever gives it a recognized place in our materia medica.

Asiatic Cholera.—The serum-therapy has been extensively tried in Asiatic countries in treating this dreadful scourge. When we come to think of its prevalence and fatalities in these countries, the interest to those people living there for obtaining a specific is something like a sure cure for tuberculosis would be to Americans.

The first effort along this line seemed to be to gain an immunity against the disease. Later on they applied the remedy to well-developed cases. "In 1893 Haffkine began work in India, and for twenty-nine months inoculated all classes and conditions

of men to the number of 11,000. The results of these investigations justifies the statement that the vaccinated are twenty times safer from the disease than the unvaccinated, and eighteen times securer from death." The blood-serum treatment has been carried on in India for the treatment of cholera on a tremendous scale. "In 1895 over 100,000 persons were inoculated. The results were definite and not entirely unexpected." So says the editor of the *Medical News* of December 26, 1896.

A Pasteur Institute is now being erected in India for the purpose of more effectually treating cholera by this new remedy. This is a wonderful and praiseworthy undertaking.

Tuberculosis.—This is not a favorable disease in many respects for the serum-therapy. It is not a self-limited disease like diphtheria or Asiatic cholera, and more frequently becomes complicated by other diseases, which always renders the treatment in any affection less certain. Koch was the first to give us light on this subject, when he produced his tuberculin, which, though not of practical therapeutical value, has opened the road which leads to the goal, that is, the discovery of a specific for this dreadfully fatal malady. Soon after tuberculin was tried, Klebs gave us tuberculocidin and anti-phthisine serums, with many of the objectionable features of the tuberculin left out. Each of these serums have been used by many of our most reliable and prominent practitioners, with almost incredible results. Among the most prominent men in this country using these remedies I would mention Von Ruck. Dr. H. Arrowsmith, late attending physician to the Brooklyn Home for Consumptives, makes this statement in regard to his work in the *Medical News*, of January 16, 1897:

"In his Sanitorium at Ashville, N. C., Von Ruck has used these products extensively and with effects which, if they are not yet brilliant, are most promising for the future. That in the line of the work that he is doing, with facilities equaled probably by none in this country, will be found (if it is not already found) a *specific* for tuberculosis, is a hope that is not entirely Utopian."

Then tuberculosis will lose its terrors, and the names of Koch and his co-workers and successors will be transmitted to posterity, as the greatest benefactors humanity has ever had.

Typhoid Fever.—It is almost universally accepted that typhoid

fever is a disease due to the typhoid bacillus and its products; but just how the bacillus acts is a matter still "sub-judice." Hence the treatment has so often varied, and no one medicine has as yet been found to be a specific, unless indeed the antitoxine can be so considered. But until more is known of this little micro-organism and its peculiar toxines we cannot hope for a perfect cure, even by the antitoxine. So far there is no agreement as to the exact toxines which are generated by the typhoid bacillus. "The universal presence of the *coli-bacillus* in the intestinal tract, and consequently its constant association with the typhoid bacillus are facts of which the importance has only recently been recognized." "It is possible that the relation of these two germs may be of great signification in the treatment of typhoid fever." In fact, some connection between the toxines of these germs has already been demonstrated. In 1894 Orlando and other experimenters of prominence found the animals rendered immune from the Coli-bacillus of Escherich were also immune from typhoid fever, and *vice-versa*.

The first account given to the world of serum-therapy in this disease was by Babes and Lepp, of the Pastuer Institute, in July, 1889. Morris Manges, A.M., M.D., of New York, in *Medical News* of November 14, 1896, after speaking of the preparation of antitoxine, etc., says: "The next factor, that of immunity, naturally brings us to the consideration of the so-called antitoxine treatment. Suffice it to say, we must distinguish between the bactericidal and immunizing powers of the blood serum.

Thus the serum of patients, both during and after typhoid fever, has a marked bactericidal action upon typhoid bacilli and on the other micro-organisms, but in this respect it is less powerful than that of persons who have never had typhoid fever. Some observers have stated that this difference is due to the using up of the so-called protective albumoses during the course of the disease. That the blood of these patients is not powerfully bactericidal against Eberth's bacilli is shown by the fact that the organisms grow freely in the blood during the disease, and, experimentally, it has been shown by Stern that if typhoid bacilli be added to the blood of typhoid fever patients, only a portion of them will be destroyed, while the remainder will proliferate very rapidly. On the other hand, the blood serum of

many typhoid fever patients has marked immunizing properties, which are retained even for a very long period after the cessation of the disease. Thus Stern has found that it was present in six out of eight convalescents from two to twenty-six days after the last day of the fever, and in three out of five patients from one to ten years after the disease, but it was absent in two patients who had survived the disease over ten years. Experiments show that infected animals can be saved by the injection of typhoid serum even many hours after they have been infected."

Up to the present time little has been done in serum-therapy in the treatment of typhoid fever in the human being; it has been most generally applied to the lower animals. In the cases in which it has been used it was very successful. The success in treating cholera with blood-serum, and especially the success made in immunizing subjects by the thousands against this disease, has excited quite an interest of late in the application of the same remedy in the typhoid fever. And preparations are now being made to use it extensively by a number of competent experimenters.

Dr. J. Riddle Goff, editor *Medical News*, said in a recent number of that journal: "In the light of our present knowledge it seems that the freedom from second attacks, enjoyed by patients who have recovered from typhoid and certain other fevers, is due to the appearance in the blood of some specific germicidal substances. Their presence insures for a certain time, for months or years it may be, immunity from that particular disease which has produced them. If these artificial serums (as used in treating cholera) produce in the individual a serum of germicidal power equal to that of a convalescent patient, why will they not confer immunity against typhoid fever just as well as a previous attack of the disease? These investigators believe that this is so, and look for a practical illustration of the theory in some rapidly spreading epidemic." And, gentlemen, I look for truly brilliant results in this field within a very short time.

I have now spoken of the most important diseases in which blood-serum has been used, and I only have time to mention the names of other diseases in which antitoxine has been imperfectly used, but with some success, and they are being tried by this remedy by the hundreds and thousands of cases in all the leading laboratories and hospitals of the civilized world.

This extensive investigation in the hands of such scientific men should most assuredly give us purer yet more powerful serums, which country physicians living so far from a city can keep in stock for cases of emergency, and use in our every-day practice.

Gentlemen, I feel that I am due you all an apology for this very long paper, but when you come to consider the vastness and importance of the subject you will at least "wink at my wickedness." Hoping that this paper may elicit a discussion upon the subject of serum therapy which will redound to the good of the people of White County, I humbly beg your pardon for the great length of my paper.

THE VALUE OF URINALYSIS AS A MEANS OF DIAGNOSIS.*

BY CHAS. C. YARBROUGH, M.D., KNOXVILLE, TENN.
Professor Organic Chemistry and Urinalysis in Tennessee Medical College, Knoxville, Tenn.

Ever since the incipiency of the science of medicine, there has been an endeavor made to diagnose disease from the examination of the urine. Hippocrates, in his close investigation of diseases, did not only not fail to note the changes in the urine, but, so far as his crude and inaccurate methods would allow, he endeavored to teach his students the symptomatic and prognostic significations of such changes. He directed attention to the physical characters of the urine, its abnormal amount, color and clearness, its turbidity and the macroscopical differences of the sediment, all of which he referred to diseases of the urinary tract. Although his explanations are not wholly in keeping with the teachings of to-day, yet they contained a germ that was destined to assume large proportions, and to prove a blessing to his professional posterity.

Subsequently, for a time, the study of the urine began to lag and no new developments of any importance were made until

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*Read before the East Tennessee Medical Society.

the time of Lorenzo Bellini, of Florence, (1643-1704), when an impetus was given it which has never waned.

Modern scientists, with the advantages of latest chemical developments and the perfected microscope have given urinalysis their best time and talent, and, in consequence, there is no part of medicine that has made greater strides. No other one subject of medicine has received more attention, and on no other subject is the literature more plentiful. In view of these facts, it seems that urinalysis is not receiving the attention from the general practitioner that its obvious importance demands. Many of us, shove urinalysis aside as if it were unnecessary and useless, and those who do examine the fluid at all, have gotten into a rut, and search only and qualitatively, at that, for glucose and albumen.

The author knows, as well as many of you, of mis-diagnosis due simply to the failure of the examination of the urinary excretion, and perhaps, of surgical procedures that have proven unsatisfactory from the same neglect. Oftentimes, we have been disappointed in the unexpected results of our therapeutical measures and wondered at our unsuccess, when in the composition of the urine, we could have read the reason why. The author knows of two cases of diabetes mellitus which were treated two and seven years, respectively, for chronic rheumatism, and one that was diagnosed and treated without avail, for general debility. And, on the other hand, he knows of a case of pneumonia, where the consultant was enabled, from the indications of the urine, to give hope when the case seemed hopeless. So we would say, that, in some certain cases from the urinary analysis, alone, is the physician able to determine the nature, condition and intensity of the disease. There is not one among us who denies that urinalysis has some claims as a diagnostic ally, but how many of us appreciate its full value? If this paper falls not far short of its intention, it will cause some of us, at least, to stop and consider.

There are constantly going on in the human body two kinds of chemico-morphological action—that of tissue-building or assimilation, and that of disintegration. The refuse of the former and the products of the latter are eliminated through four different channels: gases and vapors through the lungs and skin,

insoluble matters and debris through the intestines, and soluble solids and liquids through the kidneys. Hence, the position that the kidney occupies in the circle of the great physiological systems gives a special character to its action and excretion. The series of vital processes which commence with the admission of food, air and medicines ends chiefly in the excretion of the urine. Digestion, assimilation, sanguinification, metabolism, circulation and respiration, all, therefore affect the activity of the kidney, and materially influence the amount and character of its excretion. This is due to the fact that the kidney is mainly an excreting organ, and does not form the urea, uric and hippuric acids, pigments, salts, and water that constitute the bulk of the urine. These bodies reach the urine from the blood, being derived from the circulation, and, hence, render the urine a true index, (all modifying circumstances taken into account), to the manner in which the various viscera are discharging their functions. Thus, it is obvious that any disorder of one or more of the organs of the body will naturally effect a change in the composition of the urine, and a knowledge of such a change, when linked with other symptoms, is not to be despised.

Before leaving the subject of general diagnosis, we would like to give a few instances where the condition of the urine is significant. In diabetes insipidus, we have amount considerably increased. Febrile urine, volume decreased, concentrated, dark, reddish-yellow, excess of urates, chlorides diminished, which latter continue to diminish till the climax of the disease is reached, when they may finally disappear, their return and gradual increase are forerunners of convalescence. With icterus we constantly find biliary matters in the urine. With acute liver atrophy, we usually find the urine rich in biliary coloring matter, low specific gravity and acid reaction. We also find leucine and tyrosine. With acute lung diseases, excess of urates due to insufficient oxidation. In articular rheumatism, we observe a high specific gravity, acid reaction, excess of urea and urates, and a characteristic increase of phosphates. If pericarditis exist the phosphates and chlorides rapidly decrease. In peritonitis we find, generally, a large amount of indican. Numerous other indications could be cited, but these are sufficient to indicate, in some measure, the value of urinalysis in general diagnosis.

But, in the diagnosis and differentiation of the diseases of the kidney, itself, the urine as an index rises to its highest value and importance. The term, "kidney disease" has developed into a generic term and includes the many distinct and different disorders to which that organ is liable. An attempt to differentiate between the different varieties without a careful examination of the urine, is like "playing Hamlet with Hamlet left out." Such an undertaking would be in vain. Who is it that essays to diagnose, without first examining the urine, both chemically and microscopically, the following diseases: Active and passive hyperæmia of the kidney; parenchymatous nephritis; interstitial neprhitis; amyloid kidney; pyelitis; cysto-pyelitis; cystitis; spermatorrhœa, etc.

The author does not claim that a diagnosis can be made from the examination of the urine, alone, but he does claim that no diagnosis of any disease influencing the character and excretion of the urine, either directly or remotely, should be made without examining that most important excretion of the human body.

When the general practitioner realizes the value of urinalysis in his every day practice, and carries it into effect, then a stride will have been made in the progress of medicine that will make the world wonder. Recent advances in chemistry have so simplified analytical methods and apparatus that the physician can easily and cheaply make the analysis in his own office, without occupying more of his time than he is in duty bound to give to his case. So the item of complexity and cost cannot be urged as an excuse for the neglect of this most important ally to diagnosis. Let us then in the future devote more attention to urinalysis.

Selections.

CALCIUM CARBID AS A PALLIATIVE IN INOPERABLE UTERINE CANCER.—I have had recently an opportunity of using the Guinard (Dr. Aime Guinard, Hopital Lariboisiere, Paris,)

method of treating uterine cancer. It is hardly likely the treatment will ever be considered as a cure, indeed one should not waste time in treating in this way any cases except those which, by extension to the neighboring tissues and lymphatics, are inoperable. In procuring the calcium carbid be careful to select small fragments, as it is very difficult to break it up. This remarkable substance, the product of the union under the electric current of calcium and carbon, has the property, in contact with water, of disolving itself into acetylene gas (carburet of hydrogen) and calcic oxid. The treatment is very simple, and consists in placing a piece of the carbid weighing a dram or two in direct contact with the diseased parts. The liberation of acetylene gas commences immediately, and is retained, by filling not too closely the lower potion of the vagnia with gauze. In three days the dressing is removed, the vagina washed with bichlorid solution, and the same treatment repeated. After a trial or two I enveloped the carbid with one or two thicknesses of gauze which facilitated the removal of the slacked lime.

I admit that one swallow does not make a summer, but it may at least be a very favorable omen, and the result in the one case referred to has been very striking. The offensive discharges were entirely checked, pain greatly mitigated, and the the hemmorrage snppressed. It is, moreover, Dr. Guinard's opinion that the course of the disease itself is very favorably modified. The result above referred to, relating to discharge, pain and hemorrhage have been constant in his experience, and the plan is so simple and the results so gratifying that the treatment is well worth a more general trial in this very hopeless class of sufferers.

Excuse me for suggesting in closing that the experiment of generating acetylene gas for use as an illuminant is so simple as to justify anybody in trying it on a small scale. A large bottle with a little water in it, a cork pierced with a small piece of glass tubing, a few feet of rubber tubing terminating in a gas burner or little piece of glass tubing drawn to a fine point, is all that is necessary; the gas being generated in surprising volume immediately the calcium carbid comes in contact with the water. The light is much brighter than that of ordinary illuminating gas, and of course all know that the prospect that it may super-

cede the latter is one of the economic problems of the day.—*M. H. Ellis, M. D., in Medical Sentinel.*

SUCCESSFUL ABDOMINAL SECTIONS FOR TYPHOID PERFORATIONS.—In the *Maryland Med. Jour.*, Dr. Joseph Price, of Philadelphia, reports three successful abdominal sections for typhoid perforations. The most interesting (and worst) of these was that of Mrs. A. O., aged thirty, having several children, but without a history of miscarriages, was admitted to the hospital on October 2. 1896. She was seen by Drs. Hughes and Owens in consulation after some three weeks of illness, with a typical history of typhoid fever. Operation was performed on October 1. Symptoms of perforation were present, with well-localized attacks of peritonitis and an irregular and ill defined tumor on the right side. Omentum and small bowel were found adherent in the region of the ileo-cecal. The adhesions were easily freed and two perforating ulcers, six inches apart, were found. The lower one situated a few inches from the valve, was large, irregular and necrotic; the second one was higher up in the bowel, about one-half inch in length, well defined and less healthy in appearance. A puddle of filthy fluid was found about the perforations and the omentum and appendix were also involved in the adhesions. The infected portions of the omentum and appendix were removed. The holes in the ileum were trimmed, suture and an irrigation toilet was followed by both glass and gauze drainage. The mesenteric and retro-peritoneal lymphatics were generally enlarged and easily recognized by touch and sight. Recovery ensued without a hitch.—*Amer Jour. Surg. and Gynec.*

MOUTH SYMPTOMS OF MEASLES.—Every physician of experience knows the difficulty of determining the nature of an eruptive fever before the eruption is well out upon the skin. Yet it is but reasonable to expect that with the advamce of medicine clinical investigations will render it possible for the expert to identify these diseases at a period at least as early as the beginning of infectiousness. For this end it is evident that extreme precision of study will be neccessary.

That these fevers have rashes in the mouth and throat is well known, and many are aware that these mouth and throat rashes often precede the eruption on the skin by half a day or more, thus aiding in the diagnosis of certain difficult cases. Heretofore, however, the existence of this rash on the mucous membrane has been used chiefly in the distinction of local or general skin eruptions from those of eruptive fevers.

In the *Archives of Pediatrics*, December, 1896, Dr. Koplik of New York attempted to show that there is in measles a mouth eruption, preceding by a day or more the skin eruption; that it is found in measles alone and has very definite characteristics. It is not located in or about the fauces, which are more or less congested and red-spotted in many sorts of fever. It is located only on the mucus membrane of the lips and cheeks. It consists of small, bright-red spots in the center of each of which strong daylight reveals a minute bluish-white speck. They may cover the whole inner surface of lips and cheeks.

This eruption appears in the first twenty-four or forty-eight hours of the stage of inva ion and lasts several days. By the time the rash is well-marked these insolated spot of red have been submerged in the general tide of redness which has spread from the fauces over the whole mouth, while the bluish-white dots still persist.

Dr. Koplik has not found the spots in rubella (German measles), scarlatina or influenza. Aphthæ are less red, lack the bluish-white speck and get yellow in the center. Muguet spots are white, not bluish. Dr. Koplik has (if his observations can be endorsed by further study) not only given a most valuable diagnostic contribution but taught a lesson in minute observation.—*Md. Med. Jour.*

Points Concerning Skull Fracture.—Any blow sufficient to separate the tissues of the scalp down to the bone is usually sufficient to fracture the bone. Such a wound should never be closed until by inspection with the eye and touch with the finger the doctor is absolutely certain that no broken bone exist. It frequently happens that the break will be found so far below the skin wound as not to be noticed or found by the probe, and

is only disclosed when a flap of skin is turned back. The scalp is so moveable that it slips downward with the force of the blow and after the fracture slips back and covers it. Recently at St. Joseph's hospital in a scalp wound that refused to heal and had been made nearly two weeks before the patient presented himself for treatment, I found a depressed fracture requiring a removal of bone with the chisel; and underneath it a wound of the dura mater. After operatiug the wound healed at once without trouble. Had this man escaped meningitis, he would have become, in all probability, a victim of epilepsy.—*Kansas City Medical Index.*

Editorial.

THE MEDICAL COMMENCEMENT SEASON OF 1897,

The annual commencement exercises of the three medical schools of this city was ushered in by that of

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE.

The Forty-Sixth Annual Commencement of this time-honored institution was held in the Theatre Vendome, Wednesday evening, March 24th. When the curtain went up the entire Faculty was upon the stage, dressed in the academic cap and gown. Besides the Faculty a number of prominent men, including Gov. Taylor, were on the stage. The large auditorium, from pit to gallery being well filled with an audience characteristic of the interest taken in these occasions by the best of Nashville's citizens.

Rev. Dr. Hawthorne of the First Baptist Church opened the exercises with prayer.

Dr. John G. Johns, of North Dakota, delivered the valedictory address in an eloquent and graceful manner, giving evidence that he was an orator, as did the diploma he subsequently received attest his competency as a physician. It was a chaste and most appropriate production, gracefully delivered, with suitable reference to the advantages obtained, and courteous attention to the needs of the student on the part of their instructors, including a touching illusion to the late Prof. Callendar, concluding with a kindly and fond farewell.

Prof. L. B. Graddy, M.D., then delivered the Faculty Charge to the Class from which we make the following brief extract:

"You have adopted the noblest of professions," Dr. Graddy said, "one which draws you into the most sacred relations with your fellowman; broadening your charity for the weak, exciting your admiration for

the strong; God-like in its precepts; angelic in its administration; one filled with men whose name will forever adorn the pinnacle of the temple of fame, who never think of self in their search for truth until the waning spark of their own lives is antedated with the decree, 'Thou shalt surely die."

He extorted them to be tender, kindly and attentive in their ministrations to the poor; "they are," he said, "your best patients." The present state of medical science, the old and new methods of teaching, modern surgery and practice were eloquently discussed. An earnest invocation in regard to the observance of the Code of Medical Ethics, and the oath of Hippocrates were features of the address, which concluded with Oliver Wendell Holmes' "Morning Visit."

Chancellor W. H. Payne, L.L.D., then conferred the degrees, and the following gentlemen, as their names were called, came forward and received their diplomas:

Andrew J. Allen, Simon S. Amerson, Humphrey Bate, Jr., Charles Bell, James E. Bell, Charles M. Blair, W. B. Brock, C. G. Cate, W. E. Clark, S. B. Claypool, Maximillan Cohen, J. R. Collins, S. E. Cooper, J. A. Crafton, Archileus Crump, John B. Cummins, Albert G. Donoho, Jr., A. H. Foster, Jr., Henry E. Fraker, W. G. Frierson, W. H. Frizell, Jr., U. M. Gibbs, Fleetwood Gruver, B. L. Harris, C. M. Harris, J. M. Harris, Bev. Harrison, James C. Hatcher, Geo. T. Hendrix, Alberto Hudson, M. L. Hughes, J. G. Johns, W. F. Keller, D. T. Kimbrough, G. H. Lowe, John D. McRae, Merrell Monk, M. A. Morrison, E. L. Myrick, W. B. Pruett, W. W. Ruckes, John L. Scales, D. C. Shelton, F. L. Siler, P. L. Smith, W. J. Sugg, Robert L. Taylor, Thomas Weaver, Elizabeth White, and Joe C. Woodard.

University of Nashville medal awarded to Dr. John L. Scales, of Louisiana.

Alumni Association medal awarded to Dr. Maurice L. Hughes, of Tennessee.

W. K. Bowling medal awarded to Dr. James E. Bell, of Tennessee.

Dr. Scales will receive the appointment of Hospital Interne for the ensuing year, and will at once enter on his duties at the Nashville City Hospital.

Hon. Robert L. Taylor, ("Our Bob,") in his usual felicitious manner awarded the prizes in a brief address, concluding as follows:

"I bid you God speed, everyone of you. I beg of you that you heed the words of him who delivered the charge to you. Let your aim be high. Do not be a quack. Go forth and, win not only medals of gold, but medals more precious than gold—medals of popular opinion for work done to the world."

Tasteful and melodious musical selections were rendered by the orchestra and interspersed throughout the pleasing exercises.

Chattanooga Medical College.

The Eighth Annual Commencement of this institution was held in

the auditorium of the U. S. Grant University, in Chattanooga, of which it is the Medical Department, on Tuesday evening, March 23rd. The members of the class and Faculty, attired in Oxford gowns and caps, occupying the rostrum, which was tastefully decorated with flowers and plants. Prof. E. A. Cobleigh, M.D., Dean, presided. Vocal music by well-known and proficient amateurs of Chattanooga adding to the entertainment of the occasion.

After prayer by Rev. Dr. Pettis, Prof. Cobleigh made some remarks of a historical nature in regard to the progress of the school.

Rev. S. T. Westhafer, pastor of the First M. E. Church, delivered the annual address, which was greatly enjoyed by the large audience present.

Dr. Lisle G. Thornton, who had been chosen by competitive contest delivered a chaste and eloquent valedictory on the part of the class.

Prof. W. G. Bogart, M.D., delivered the address to the graduating class on behalf of the Faculty. He pointed out the difficulties to be encountered by young physicians, and gave them words of encouragement. He admonished them to look well to their moral characters, as much depended on this in the successful career of the physician. He denied that physicians generally were agnostics or skeptics, and emphasized the importance of recognizing the benign influences of the Almighty in the healing of disease. The address was well and carefully prepared, and delivered in a most felicitous manner.

Prof. J. R. Rathmell, M.D., Secretary of the Faculty, then announced the names of the graduates to whom diplomas were presented, and the Degree of M.D., was conferred by Dr. R. J. Cooke, Acting President of the University in an impressive manner. The names of the graduates are as follows:

W. A. Ball, M. M. Boulton, G. M. Chapman, C. A. Cobleigh, W. H. Crumpton, D. I. Delk, E. W. Dickey, W. T. Erwin, J. V. Eaves, F. W. Faulk, L. D. Fricks, B. F. Godfrey, W. E. Haygood, M. C. Hildebrand, E. Harris, L. H. Harrill, J. W. Hewatt, R. P. Johnson, Jr., J. M. Lindsay, A. L. Lewis, I. H. McNabb, A. P. Martin, R. W. Meyers, Burk Priddy, Jr., R. L. Stout, W. P. Stone, J. R. Sherman, H. C. Smisson, B. N. Speer, R. P. Sullivan, L. G. Thornton, S. A. West, E. C. Anderson.

The following prizes were awarded:

First prize to Lunsford D. Fricks, of Georgia; second prize to C. A. Cobleigh, of Tennessee; third prize to L. G. Thornton, of Texas.

The exercises were closed with the benediction by Rev. Dr. Cooke, and another class goes out from under the shadows of grand old Lookout to enter on the arduous duties of professional life.

Medical and Dental Departments of the University of Tennessee.

Notwithstanding the inclemency of the weather, the rain commencing about noon, but continuing all the afternoon, coming down in torrents during the entire progress of the exercises, a gathering of some of Nashville's most representative citizens, a large number consisting of the

fairer sex, completely filling the large auditorium were gathered at the Theatre Vendome on the evening of March 29th to witness the annual commencement exercises of the Twenty-Second regular session of the Medical and Dental Departments of the University of Tennessee.

The stage was decorated in a profusion of flowers, and behind the foot-lights sat the Faculty and the two valedictorians. The college colors, white and orange, were worn by almost every one that attended the exercises. A sharp contrast was presented between the beauty of the scene within the theatre and the gloom and downpour without.

A lengthy but pleasing programme was rendered, in which music by the orchestra was freely interspersed.

A blessing was invoked upon the assemblage by Rev. J. B. Hawthorne, after which T. B. King, of Tennessee, delivered the valedictory of the Dental Department. The address was upon dentistry, and the young gentleman very gracefully depicted the room haunted by that pain which emanates from a hollow tooth, and which is excelled by none that flesh is heir to. He contrasted the old method of pulling out the aching ivory and the advanced usages of to-day. The conclusion was in the nature of a recalling of the memories of the student life and the unveiling of the hopes for the future of himself and classmates. His address sparkled with wit and humor, and was decidedly the gem of the evening.

The medical valedictory was next delivered by Dr. Isaac Edwards, of Mississippi, who plainly demonstrated the excellence of the Faculty's choice in selecting him as the representative of his class. He paid very high tributes to his Faculty and to his Alma Mater, in behalf of his classmates, thanking the former for excellent tutelage and advice. He concluded by expressing sincere regret that the ties binding each member of the class of '97 to the institution were soon to be severed. His calm, deliberate and impressive manner, and full and mellow voice, evidenced that he possessed the gifts of oratory, as well as having attained by arduous study a high degree in a worthy profession.

Prof. Chas. W. Dabney, Jr., Ph.D., L.L.D., President of the University conferred the degrees, but previously spoke some words of wisdom to the graduates upon "The Higher Service of the Medical Man." The service referred to was that due to God and to mankind, above the drudgery incidental to providing for the physical wants, and neglect of which he pronounced as the crime of to-day among men and women." "Plan from the beginning," he advised, "strive always to save a part of your time from slavery to nature to be devoted to study and thought, love and service of your fellow-being. You must do this in order to grow in your own natures. Nothing stands still in this world, and you must go up or be dragged down."

The charge to the dental class was delivered by Dr. John S. Marshall, of Chicago, Ill., and was calculated to stimulate the young men to continued study and original research. He expressed a wish to arouse in them an ambition to solve the mysteries still hidden in their department of science. He paid a glowing tribute to Harvey, Jenner, Pasteur and

Lister, earnestly urging a like earnestness in purpose. He said: "Your presence here this evening proves that you possess a laudable ambition, and have fulfilled the requirements of the university, but the real battle now begins. Your professors have equipped you for the fight; but which direction shall it be? It remains with you whether it shall be to earth or heaven."

Dr. Marshall advised those to whom he spoke especially to be progressive in their profession, to be painstaking and earnest. After impressing upon the young men the full force of the epigram. "There is room at the top," he closed his charge with several examples in which original research had brought untold benefits to the human race.

Prof. Hazle Padgett, M.D., delivered the charge to the medical graduates. He spoke to the members at some length, giving much wholesome advice, attired in picturesque language. He mentioned the good influence which the professors had attempted to throw around the student, and expressed a hope that the return from each would be a noble career teeming with good works. Said he: "If you expect to accomplish anything in life you must strive for it earnestly and the end will be achieved."

"The world," he continued, "cannot write a better epitaph for you than 'he thought and labored.' Concentrate your efforts and the good will be gained. Perform each duty and the glories will come. Be kind, gentle and true, and struggle onward in spite of defeat.

The following is the list of graduates:

In the Medical Department.—Joseph J. Blanton, Miss.; Duncan M. Broach, Texas; Isaac Z. Brown, Tenn.; Richard M. Counterman, I. Ter.; Robert H. Dorris, Tenn.; Isaac Edwards, Miss.; A. O. Eskew, Tenn., Millard M. Fowler, Ill.; Robt. L. Fulcher, Miss.; J. R. George, Texas; Chas. B. Hanson, Ill.; B. N. Jobe, Tenn.; Chas. H. Johnson, Ky.; Percy L. Jones, Ga.; John E. McClung, Texas; W. F. McManus, Tenn.; Mont. McNeely, Ky.; George L. Mitchell, Tenn.; Robt. L. Newman, Tenn.; Donnell H. Owen, Tenn.; Joe L. Pennington; Wm. O. Sullivan, Tenn., General W. Taylor, Tenn.; Robert B. Ussery, Tenn.; John M. Weaver, Tenn.; Earl S. Winters, Texas.

In the Dental Department.—J. W. Bryan, Tenn.; W. J. Crutcher; Tenn.; W. H. Kemp., Ala.; T. B. King, Tenn.; W. E. Lundy, Miss., W. O. McIntyre, Ky.; A. S. Page, Tenn.; K. J. Schumon, Tenn.; L. W. Smith, Ga.; M. N. Terrell, Ala.; R. W. Vanamburg, Mo.; J. L. Webre; La.: S. A. Webre, La.; F. C. Williams, Va.

The prizes for the year were awarded by Prof. Wm. D. Sumpter, M.D., in a very neat and appropriate address. He urged the young men to be dilligent and grasp every opportunity.

The prize winners were:

Medical.—Paul F. Eve Faculty Medal, Percy L. Jones, Georgia; Faculty Second Honor, A. O. Eskew, Tennessee; Faculty Third Honor, W. F. McManus, Tennessee; Special Medal, Surgical Laboratory, J. L. Pennington, Tennessee. The first honor carries with it the interneship of the City Hospital; the second prize, the interneship of the Davidson

County Asylum Hospital, in which field the two successful winners will be enabled to put into active use the knowledge they have obtained, and materially add thereto during the ensuing twelve months.

Dental.—Faculty First Honor, A. S. Page, Tennessee; Faculty Second Honor, F. C. Williams, Virginia; Faculty Third Honor, J. W. Bryan, Tennessee; Special Medal, A. S. Page, Tennessee.

After the honor medals were awarded, Prof. Paul F. Eve, M.D., Dean, called out the names of quite a number of the happy graduates whose joy was greatly enhanced by being the recipients of numerous and tasty floral offerings on the part of appreciative friends. The benediction having been pronounced by Rev. Dr. Hawthorne, at a late hour, the large but well pleased audience slowly dispersed accompanied by the delightful notes of "Home Sweet Home" rendered by the orchestra.

Medical Department of Vanderbilt University.

Another evening of elemental commotion ushered in the annual commencement exercises of the medical department of this great Southern university. The rain commencing between 5 and 6 P.M., on Thursday, March 31st, reached its climax with a violent electrical storm between 7 and 8 o'clock, attended by a veritable cloudburst over this city of schools, colleges, and universities; and notwithstanding our signal service department on the following morning, stated that one inch of rainfall was the share of this locality during the preceding night, it did not seem to dampen in the least, the ardor, enthusiasm and esteem of the many friends of the students and Faculty of this institution. Promptly at 8 P.M., the exercises began.

The magnificent and commodious building was a blaze of light from top to bottom emanating from the many electric bulbs placed in profusion in every hall, corridor, nook and corner, affording not only a noon-day brilliancy, showing in fullest extent the many excellencies and advantages, as well as the perfect adaptation in its every detail of this handsome and well-proportioned addition to the many fine buildings of the Capital City, as well as bringing out in fullest extent the handsome toilets, bright eyes and beautiful forms and features of the fairer portion of the large audience, who had faced the inclemency of the weather, and by their graces and charms but added to the floral decorations that had transformed this great intellectual work-shop, and hive of science into a bower of beauty.

The handsome and commodious general lecture hall, with its seating capacity nearly doubled by chairs in the aisles and lobby, was comfortably filled by an intellectual and cultured audience, who from time to time plainly manifested by well-timed approval the deep interest in and enjoyment of the evening's exercises.

The Chancellor of the University and the Faculty of the Medical Department, with Rt. Rev. R. K. Hargrove, occupied the rostrum, which was converted into a grove of bloom and blossom with a profusion of floral decorations, with the monogram "U. V." wrought in a chaste collection of flowers overhead. The sub-faculty occupied chairs immedi-

ately in front of the rostrum, and facing the audience, with the graduating class in the front seats of the auditorium, the "old gold and black," being in evidence everywhere. Melfi's Italian band discoursed a variety of beautiful airs throughout the intervals during the evening. After prayer by the Right Reverend and venerable Bishop Hargrove, Prof. Richard Douglas, M.D., delivered the annual charge to the class, which we are pleased to place in full before our readers in the Original Department of this issue. It is needless to say that it was delivered with a chasteness, energy and eartnestness so well in keeping with this young and talented member of the Faculty, whose high appreciation was manifested by the numerous salvos of applause during its delivery, and the magnificent floral offering tendered him by the members of the graduating class at the close of the exercises. After the musical interlude succeeding the rounds of applause following Prof. Douglas' address, the Dean of the Medical Department, Prof. Wm. L. Dudley, M.D., in accordance with the custom of the University read out in regular order the "honor members" of the Junior and Middle classes, a designation given to each one who had obtained a degree of classification of 80 or over in the preceding examinations in each department. He next presented the graduating class whose names were announced in full as given below to the Chancellor of the University, James H. Kirkland, A.M., Ph.D., L.L.D., who proceeded to confer on them the degree of Doctor of Medicine. The Chancellor first addressed the audience upon the efforts of the Faculty to to send the graduates into the world imbued with high ideals and fitted to achieve their most ambitious aims. To the class he spoke of the great advance in the methods of teaching medicine, and prophesied continued progress. He spoke of a four years' course instead of three as a probability of the near future. He gave the young men some excellent advice as to their action after leaving the institution. He stated that one year ago he had promised that no institution should send out better prepared or more thoroughly qualified and equipped young men than the university with which he was connected, and he was gratified to say that the class of the year now closing had so far fully redeemed that promise. He administered to the graduates the time-honored Hippocratic oath of centuries ago, adding to it some timely and witty remarks.

Dr. Dudley awarded the medals as follows: Founder's medal to E. C. Goodloe, of Alabama; second prize to Karl Russell, of Kentucky, and third prize to J. M. Horn, of Georgia. These young men were appointed respectively to the city hospital, the college dispensary and the county hospital.

Special medals for the under graduates offered by Prof. W. F. Glenn, M.D., and Instructor J. T. Altman, M.D., were awarded to J. H. Thomas, of Texas, and R. L. Jones, of Tennessee. An additional reward adopted and placed in effect this session was two scholarships of the value of $50 each to be given to the students passing the highest scholarship examination in the Junior and Middle Classes, which were given to J. H. Blackburn and J. F. Fox.

After a distribution of floral tributes to the graduates in which Prof. Douglas received many additions to the handsome one previously alluded to, the benediction was pronounced by Bishop Hargrove, after which the large audience availed themselves of the invitation which had been extended to make a tour of the handsome building, which, from top to bottom, was thrown open for their inspection. The Bacteriological and Microscopical Laboratories claimed the greatest share of attention, but throughout the spacious halls and corridors were gathered to a late hour groups of interested friends and relatives of the class, some of them taking a fond farewell, and others going over reminiscences of the past and anticipations of the future. It was a gala night, indeed, and most thoroughly enjoyed by students, faculty and invited guests.

The following is the list of graduates: J. E. H. Atkeisson, Tennessee; S. R. Bates, Tennessee; E. C. Barham, Tennessee; C. Y. Clarke, Mississippi; J. J. Covington, Tennessee; G. W. Eastham, Tennessee; C. O. Farrington, Texas; E. C. Goodloe, Alabama; E. B. Gray, Louisiana; W. A. Greer, Tennessee; Y. W. Haley, Tennessee; J. M. Horn, Georgia; M. B. McCrary, Tennessee; L. F. McKay, Tennessee; A. M. McRee, Georgia; T. W. Menees, Tennessee; J. H. Pickard, Tennessee; J. T. Pugh, Alabama; Karl Russell, Kentucky; J. L. Sadler, Tennessee; J. G. Sadler, Texas; G. H. Sandifer, Texas; J. A. Self, Kentucky; I. J. Sellers, Alabama; J. Z. Sexton, District of Columbia; H. Tanksley, Tennessee; T. F. Taylor, Tennessee; B. G. Tucker, Tennessee.

A peculiar feature of the exercises was the abandonment of the usual valedictory address by a member of the class, a feature which we understand will hereafter be carried out by this progressive Faculty, who believe that it is not only, as a rule, tiresome to the audience, but occasions a waste of time on the part of the student that had better be devoted to obtaining a proficiency in the healing art rather than that of oratory.

DENTAL DEPARTMENT OF VANDERBILT UNIVERSITY.—From the programme of the Commencement Exercises to be held on the evening of Thursday, April 1st, we extract the following: Class Valedictory, by L. W. Brand, of Illinois; Charge to the Graduating Class, by Rt. Rev. Thos. F. Gailor; Conferring of Degrees and Delivery of Diplomas, by J. H. Kirkland, A.M., Ph. D., LL.D., Chancellor of the University; Delivery of Medals, by Rev. J. O. Rust; W. H. Morgan, M.D., D.D.S., Dean; First Honor, Founder's Medal, E. J. Snider, of Texas; Second Honor, J. A. Richards, Louisiana; Third Honor, W. L. Dazey, Texas; Fourth Honor, C. W. McGuiar, Kentucky. Medals were also awarded to members of the Middle and Junior Classes. We would have been pleased to have given a more extended report, but for want of space, and having already delayed publication of this number beyond the usual time prevents it.

AMERICAN *vs.* FOREIGN PRODUCTIONS.—In the striking advertisement of *Mercauro* in the last number of this Journal is boldly and frankly stated

by the Chas. Roome Parmele Co., that it is made in America and not in Germany. There are a few would-be *dilletanti* in the medical profession as in other walks of life, who place entirely too much stress upon many articles that can be produced equally as well in these western wilds as in the most favored localities of "Yurrup." In the broad domain of science the day was when with our sparse population, scattered over a vast area of almost impenetrable forest and wilderness, the more densely populated area of the older eastern hemisphere afforded better opportunities for advancement, and just as the western portion of the eastern hemisphere caught up with and surpassed in civilization, science and the arts, its eastern portion; yet only more rapidly has this portion of the American continent overtaken and, in quite a number of instances, surpassed its eastern progenitors.

Oh! no, Americans of the present day do not have to take a back seat, and in no lines of advancement and research have they kept so well up as in chemical, pharmaceutical and therapeutic progress. The only difference is that while it required several centuries to enable the most highly developed portions of Europe to surpass their predecessors of their east we have accomplished as much in one century.

The time was when it was all very well for the physicians and surgeons of this young republic to avail themselves of hospital facilities of the denser populations of Europe; but that day is well past, and now not alone in our larger Metropolitan centres, but all over our broad land, from Sandy Hook to the Golden Gate, from the great lakes to the gulf, the ablest of European clinicians can get many pointers and ideas of material value and benefit.

Pages and volumes might be written on these lines, but we deem it unnecessary at this time, and congratulate the Parmele Co., on the bold, open and manly stand they have taken in regard to American Pharmaceutical and Clinical progress. Such independence should be heartily sustained by an independent people.

In the last number of *The Atlanta Medical and Surgical Journal* we find the following:

"Honest American manufacturers of preparations advertised in medical journals justly complain that foreign-made articles, patented or not, are freely used, recommended and written about by American physicians who "shy away" from the idea of openly recommending or using American-made medicines, and which are not patented. There are many excelcelent preparations made in America and used by physicians. Those using them would be consistent to give them an honest recommendation."

This more extended extract is from a late copy of the *Maryland Medical Journal*, and is headed "*Straining at a Gnat and Swallowing a Camel.*'

"A novel announcement made in our last issue calls an interesting point to mind. It reads, "Mercauro is not made in Germany." This statement gives food for reflection. In the last few years the American market has been flooded with the products of foreign laboratories. Their value is not the point now under discussion. They are as distinctly proprietary as any of the many American products. In fact, are more

than that, a major proportion being actually patented. We do not call to mind a single one of the best known American products which is patented, and yet we realize that American proprietary products are very frequently tabooed by American medical practitioners simply upon supposed ethical grounds. We call to mind the attitude assumed by the editor of a prominent medical journal in this matter. How can such a position be defended? If it be unethical to prescribe an American article which is proprietary, wherein is it ethical to prescribe foreign products which are both proprietary and patented? Where does the medical practitioner stand who discards the American article and prescribes the foreign? Has he a logical defence from an ethical or any other standpoint?"

FOR DOCTORS ONLY.—Messrs. A. G. Spalding & Bros., New York, Chicago, Philadelphia and Washington, are advertising extensively in the medical publications the Christy Anatomical Saddle.

The Christy is the pioneer in the anatomical saddle line, and Messrs. Spalding firmly believe they have without question the best bicycle saddle on the market. In order to get from the medical profession their ideas on the Christy Saddle, that the same may be advertised extensively, they make the following offer:

They would like to receive from physicians an advertisement setting forth the good points of the Christy Saddle, showing the pelvic bones on the two saddles as used in all Spalding advertisements, and not to occupy a space of more than half a page, magazine size, the competition to close April 15th. First prize, $50 in cash; second prize, $25 in cash; third prize, $10 in cash.

For every individual advertisement accepted and used, one Christy Saddle will be sent to the physician submitting the same.

All communications and copies of advertisements submitted must be sent to the American Sports Advertising Agency at 241 Broadway, New York City, and at the sender's risk. Under no circumstances will advertisement be returned.

ZE-AN (N., B. & Co.)—The principal objection to the use of corn silk, which is a diuretic of acknowledged rare value, has lain in the fact that the dose of the ordinary pharmaceutical preparations has been too large. Nelson, Baker & Co., of Detroit, Mich., have overcome this in their Ze-an (N., B. & Co.) which is eight times the strength of the ordinary fluid extract. The pharmacological work on this preparation, conducted in the firm laboratory, has demonstrated it to be a diuretic of the first order, an anodyne to the mucous membrane and a lithontriptic of pronounced activity.

SANMETTO IN BRIGHT'S DISEASE.—I have been using Sanmetto in my practice for two years or more, and am nearly always well pleased with its effects. Have had splendid success with it in Bright's disease, sometimes using it alone and at other times in connection with digitalis.

Shell, Ala. H. GREEN, M.D.

THE TILDEN COMPANY, New Lebanon, N. Y., and St. Louis, Mo., have just issued a very handsome booklet, profusely illustrated, relating in a most entertaining vein the experience of a prominent physician with Tilden's Elixir Iodo Bromide of Calcium Comp., in the treatment of syphilis, etc., in India. The account contains valuable information regarding the habits, superstitions, etc., of the natives. Copies will be furnished upon application.

AT A recent meeting of the Board of Trustees of the Jefferson Medical College, Philadelphia, Dr. J. Chalmers DaCosta was elected Clinical Professor of Surgery. Dr. DaCosta has been connected with the College for many years, and has recently been Demonstrator of Surgery and Chief of the Out-patients Department. The new appointment is made in recognition of his long service and valuable contributions to surgical literature.

THE SUCCESSFUL USE OF TONGALINE for the past fifteen years is positive proof of its efficacy. Tongaline has always been found to relieve promptly the pains incident to rheumatism, neuralgia, gout, sciatica, la grippe and nervous headache, while its eliminative properties have seldom failed to complete a thorough cure. By the use of Tongaline patient may be saved the dangerous necessity of resorting to opium or its salts in all affections where pain is a prime symptom. In a recent conversation, Dr. J. B. Cowan, of Tullahoma, Tenn., so well known as Chief Surgeon of Forrest's Cavalry, said, "that he had no trouble in controlling grippe by the use of Quinine and Tongaline."

THE TENNESSEE STATE MEDICAL SOCIETY will hold its regular annual meeting in this city, commencing Tuesday, May 11th. In our next number we hope to give the programme in full, which is now in process of preparation. The Committee of Arrangements expect to provide for ample time to take in our great Centennial Exposition, as well as an unusual amount of good society work. All physicians of this State who can are expected to be present. Physicians from other states will be cordially welcomed. A mighty good time to visit Nashville, doctors. Our strawberries will be ripe, green peas and fresh lamb, as well as other delicacies for the physical man—to say nothing of the intellectual feast.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N.Y., sole agents.

CINCINNATI SANITARIUM.—We have received the superintendent's 23rd annual report of this admirable and excellently-managed private hospital for the treatment of persons suffering from mental and nervous disorders, opium habit, inebriety, etc. The number of patients on hand at the beginning of the year was 80; admitted during the year, 122; number discharged, recovered, 51; discharged, improved, 53; unimproved, 8; died, 8; on hand at end of the year, 82. Since its establishment there have been a total of 2,833 admitted; 1,293 discharged, recovered; 881 discharged, improved. The Sanitarium consists now of new buildings, designed for hospital work, admirably constructed according to late and improved designs, and thoroughly equipped under the charge of Dr. Orpheus Everts, who has had long experience in this work, with an efficient corps of trained and experienced attendants, make it one of the best institutions of the kind on this continent. It is located on the C. H. & D. R. R., and is accessible by electric cars from Fountain Square, Cincinnati, every ten minutes.

CAROID.—An exhaustive report by the well-known physiological chemist, Prof. R. H. Chittenden, of Yale, would seem to justify the claims set forth by the American Ferment Company regarding their new vegetable digestive agent, "Caroid." This report shows the digestive activity of Caroid in various mediums and in comparison with other well-known digestive agents. It would seem that Caroid, which is a highly concentrated extract from the Pawpaw plant, is not restricted as to class of food, medium or combination with other drugs so far as its activity is concerned. This is a matter of decided interest to medical practitioners. We are glad to see that the price of this new ferment does not make its general use prohibitive.

A DESERVED EUROPEAN INDORSEMENT.—*Health*, a weekly journal of medicine and surgery, diet and sanitary science, London, Eng., says editorially: "We have received from The Antikamnia Chemical Company, St. Louis, Mo., U. S. A., a brochure dealing with the action, history, indications and administration of their preparation, antikamnia. There is no remedy so useful and attended with such satisfactory results in the treatment of melancholia with vaso-motor disturbances, anæmic headaches, emotional distress, and active delusions of apprehension and distrust; and it also increases the appetite and arterial tension, and promotes digestion, as well as being particularly serviceable in relieving the persistent headache which accompanies nervousness.

"In neurasthenia, in mild hysteroid affections, in the various neuralgias, particularly ovarian, and in the nervous tremor so often seen in confirmed drunkards, it is of peculiar service. In angina pectoris this drug has a beneficial action; it relieves the pain and distress in many cases, even when amyl nitrite and nitro-glycerine have failed entirely. In

pseudo-angina, frequently observed in hysterical women, its action is all that can be desired.

"To patients who suffer from irritable or weak heart, needing at times a pain reliever, it can be taken without untoward after-effects, knowing that the heart is being fortified. It increases the elimination of urea and purifies the blood without increasing the destructive tissue metamorphosis. It lessens coma and loud delirium by contracting the capillaries of the brain. In delirium tremens, it relieves when there is great restlessness with insomnia, as well as general lowering of the nervous power."

FOUR STANDARD REMEDIES.—The medicinal effects of which physicians may fully rely on:

Dioviburnia.—The most powerful and trustworthy uterine tonic attainable, of which the most eminent gynecologists bear testimony, in dysmenorrhea, amenorrhea, menorrhagia, leucorrhea, subinvolution, threatened abortion, vomiting in pregnancy, chlorosis, etc.

Neurosine.—The standard neurotic, anodyne and Hypnotic. Unexcelled in hysteria, epilepsy, neurasthenia, mania, chorea, uterine congestion, migraine, neuralgia, and all convulsive and reflex neuroses; containing no chloral or morphine.

Palpebrine is what the name would indicate, a most reliable remedy for external eye diseases; highly recommended in simple acute and chronic catarrhal, venereal, blenorrheal and strumous or scrofulous conjunctivitis, marginal blepharitis and inflammation of the lachrymal sac and other external inflammation of the eye. Palpebrine, in the hands of the general practitioner, will enable him to treat successfully the external affections of the eye without having to send such cases for treatment to the specialist.

Sennine is unexcelled as a dry antiseptic dressing, and is a specific in the treatment of old sores, ulcers, bubo, eczema, pruritus, burns, scalds, etc., wherever a dry antiseptic dressing is applicable, being entirely odorless will save both the practitioner and the patient disagreeable odors as well as those they come in contact with. Sennine is a very fine white powder put up in two-ounce perforated-top boxes, making it convenient to apply upon wound surface.

These four products are manufactured by the Dios Chemical Co., which is sufficient guarantee that they are entirely reliable and contain such drugs as the formula of each indicates, which they freely circulate to the profession only.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

DIABETES WITH PAINFUL MICTURITION.—It is with the greatest pleasure that I report the good results from the use of Sanmetto upon myself. I have been a sufferer for five months from diabetes, with great pain just before passing my water. From the use of two and one-half bottles of Sanmetto the pain was removed and the inflammation checked. I have prescribed Sanmetto several times since, and shall continue to do so. J. N. STOREY, M.D.

Hill, N. H.

THE FIFTH SEMI-ANNUAL MEETING of the Southern Kentucky Medical Association will be held at Hopkinsville, Ky., Wednesday and Thursday, April 14th and 15th. This is going to be the banner meeting at the Metropolis of Southern Kentucky. Reduced rates on all railroads entering Hopkinsville, and board to members and their wives at the best hotels at a reduction.

"MILITARY CYCLING IN THE ROCKY MOUNTAINS," by Lieut. James A. Moss, commander of the Twenty-fifth U. S. Infantry Bicycle Corps, is the title of No. 62 of Spalding's Athletic Library. It contains an interesting account of the trips of the first bicycle corps organized in the army, and besides a handsome portrait of Gen. Miles, is illustrated with views taken in Yellowstone Park and along the line of march. The book will be sent postpaid to any address in the United States or Canada on receipt of 10 cents by the American Sports Publishing Co., 241 Broadway, New York.

THE THOMPSON LABORATORY, Washington, D. C., Feb. 8, 1897.

THE TILDEN COMPANY, New Lebanon, N. Y., Gentlemen:—I have been suffering for two days from an acute attack of neuralgia, very severe at nights. This evening, deciding to take an antipyretic, and accidentally coming across a sample bottle of your Liquid Antipyretic, I took one single dose, which had a marvelous effect, and no after effects, as I usually have after taking Acetanilid, a drug I always prescribe.

Yours, etc., JOSEPH A. THOMPSON, M.D.

QUERY?—Has your subscription to this journal been paid for the current year? See outside of mailing wrapper.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

THE NECESSITY FOR EARLY RECOGNITION AND TREATMENT OF CARCINOMA UTERI.

BY WILLIAM D. HAGGARD, M.D., NASHVILLE, TENN.

Professor of Gynecology and Diseases of Children Medical Department University of Tennessee.

To the classes I have had the honor of addressing from 1884-1897,

GENTLEMEN: In partial compliance with your oft-expressed desire to have in print my teaching on cancer of the uterus, coupled with a partial promise on my part, I address this letter to you. If it will serve only as a reminder of the pleasant association of former years, I will be pleased indeed, and if the ideas evolved will be potent in directing your thoughts to the essential features in the early recognition of cancer of the uterus, I will be amply repaid for the effort. This letter is manifestly not in the nature of a *resume* of the vast subject of carcinoma uteri, nor a compilation of statistics from medical records, but is intended to accentuate the necessity and methods for diagnosis of the disease in its

JOHN BERRIEN LINDSLEY, A.M., M.D., D.D., born at Princeton, N. J. October 24, 1822; Professor of Chemistry, Pharmacy and Toxicology in the Medical Department of the University of Nashville, from its origin to 1873; Professor of Chemistry and State Medicine in the Medical Department of the University of Tennessee from 1889 to 1895, and State Medicine to date. The only survivor of the original Faculty of the Medical Department of the University of Nashville.

WILLIAM K. BOWLING, M.D., born in Westmorland County, Va., June 5, 1808, died at Monteagle, Tenn., August 6, 1885; Professor of Principles and Practice of Medicine in the Medical Department of the University of Nashville from its origin until 1873; Professor of Principles and Practice of Medicine in the Medical Department of the University of Tennessee from 1879 until date of death

incipiency, and to quicken the active and growing sentiment in favor of early surgical intervention.

It seems as if Nature allows the disease to linger in the incipient stage, even causing the process of ulceration and the peculiar fetid odor to appear as an admonition of danger. This symptom is so characteristic and unvarying in its nature as to be pathognomonic of the disease, and should be sufficiently significant to the experienced practitioner to enable him to make an inferential diagnosis of cancer without a vaginal examination. In impressing this point you may remember I have often stated it in the nature of a question. The cervix, which is primarily involved in probably 98 per cent of cases, is the most accessible part of the uterus, and the alert physician frequently has time, even after this symptom, for diagnostic purposes as well as the institution of radical measures for its removal, before the surrounding structures become irretrievably involved.

Unfortunately cancer usually appears in the climacteric decade between 40 and 50, when the welcome and innocent change of life too often becomes the Nepenthe which leads the unsuspecting woman to "Lethe's dark stream," from which struggling nature, unaided, never escapes.

Women should be taught to understand that the menopause, while it brings the pleasant assurance of a cessation to the trials of maternity, and a conclusion to the annoyance and inconveniences of menstrual life, brings likewise many dangers.

The difficulty lies in getting a starting point. The woman who does not know of the danger of malignant disease at this time, does not suspect it, and does not consult her family physician until the disease has made such inroads as to preclude operative salvation—and her fate is sealed. If we can devise some means by which every woman when she is approaching the change of life could be induced to consult her doctor, we would get a starting point. Then let us appeal to every medical man to teach every woman under his care, what may happen to her during this important epoch. If it were possible to have every woman under competent medical supervision during the climacteric, the prophylactic value of this expedient would be second only to vaccination and quarantine.

This desideratum being obviously impracticable, it remains

for you, and all of us individually, to instruct our own *clientele*. Every woman should be plainly taught the phenomena of a normal menopause. If there is any abnormality, such as too frequent or too profuse menstruation, or the appearance of a watery discharge, particularly if it be attended with admixture of shreds of tissue resembling the washings from raw beef, and often quickly followed by a fetid discharge of disintegrating tissue, she should consult her attendant at once. The occurrence of frequent, or even occasional, sharp, quick uterine pains should be regarded with suspicion. Another matter of importance is attention to recurrences of menstruation, months or years after its supposed cessation. Any of these symptoms in connection with the change of life should suggest a thorough examination. They indicate the possibility of malignancy and require immediate inspection.

Apart from the difficulties of seeing these cases early is the accurate diagnosis when they present themselves. I will not enumerate the symptoms, which, with the exception of fetor, are not conclusive, but serve merely as danger signals, and as a mute admonition for investigation. Let us then consider the well-known methods of diagnosis which should be employed here.

As an additional reason for making no mistakes in the detection of cancer it is, as a rule, simple and oftentimes infallible. I have repeatedly said in the lecture-hall, as if robbing you of all excuses, that cancer, of all uterine diseases, was most unmistakable. With a correct knowledge of its manifestations, the simple employment of the senses of touch, sight and smell are, as a rule, all-sufficient. Beginning usually with a digital examination, the indurated cervix, imparts a cartilaginous sense of resistance in the early stages, or may present the characteristic papillary or "cauliflower excresence" feel, or the ragged ulcerated area of varying extent. Instrumental inspection reveals the livid exfoliating surface similar to the eversion attending aggravated cases of lacerated cervix. The ulceration has a peculiar yellowish hue, and the vegetations attending the papillary varieties are characteristic. The discharge complained of can then be easily investigated at this time, and an estimate made of its quantity and character. If necrotic destruction has commenced, the peculiar fetid odor, once observed, is so distinctive

A. H. BUCHANAN, M.D., born in Winchester County, Va., 1806, died at Stone Mountain, Georgia, June 20, 1863; Professor of Physiology, Surgical Anatomy and Pathology in the Medical Department of the University of Nashville from its origin until the date of his death.

PAUL F. EVE, M.D., born near Augusta, Ga., June 27, 1806, died at Nashville November 3, 1877; Professor of Surgery in the Medical College of Georgia from 1832 to 1849; Professor of the Principles and Practice of Surgery in the Louisville Medical College in 1850; in the Medical Department of the University of Nashville from its origin until 1868; in the Missouri Medical College 1869-'70; in the Medical Department of the University of Nashville from 1871 to 1875; in the Medical Department of the University of Tennessee at the time of his death.

and characteristic, as never to be forgotten, and to serve as I have so often told you, as alone sufficient to establish a diagnosis. From this recital of the usual findings in maliguant disease, it is apparent that one practically does not need a microscope. However, if the disease begins in the cavity, it should always be brought into requisition. I am aware that in many cases scrapings simply bring away detritus that is structureless and useless microscopically, but it has so often been proved that currettings from a suspicious case dropped into alcohol and submitted to a competent microscopist, have converted a supposedly benign case of endometritis with metrorrhagia and enlargement of the uterus into sarcoma, or the malignant form of adenoma. I have even known charitable microscopists to find evidences of malignancy in uteri removed for other reasons.

When diagnosis is indisputable, the very responsible question of operability requires answer. I will formulate the rule that has no exceptions: No case should be subjected to operation, in which all involved structures cannot be removed. Rules are intended to simplify, but their rigid fulfillment does not simplify generally. This is especially true in this connection. I do not know any problem in surgery whose solution is fraught with so much difficulty as the determination for or against operation in cancer of the uterus. Aside from the very great moral responsibility is the technical discrimination in the selection of cases. There are a few general, but well-defined principles that may be relied upon. The cervix, where the majority of these maladies originate, is more sparsely supplied with blood-vessels and lymph-channels than the endometrium or the corpus uteri, and it is a matter of general observation that carcinoma may exist there for a considerable time without making inroads by involvement of adjacent tissue to such extent as to militate against the feasibility of complete removal. How long? Would that I could tell you. The natural history of uterine cancer has been estimated as lasting from one to one and a half years, for exceptional cases, possibly longer.

It is apparent that only in the early months is extirpation safe. The danger of delay after the appearance of the disease increases in alarming ratio to each month of its existence. Reed*

*Trans. Amer. Ass'n Obstetricians and Gynecologists, 1892, Vol. V., p. 307.

reports the most significant comparative table that I have yet seen. In seven cases in which the disease was of more than six month's duration before operation, none were alive two years after operation. In seven cases where the disease was of six months' or less duration before the operation, six were alive two years afterward. While this is only approximately accurate it is strikingly conclusive. The extent of the ulceration is another important matter, but must be taken together with the amount of involvement of peri-uterine tissue. This requires the most careful palpation, directed to the discovery of any glands at the base of the broad ligament, or any induration therein. I am in the habit of supplementing bi-manual examination with the middle finger in the rectum for a more thorough exploration. There are many shades of involvement and a corresponding latitude in the limits for and against surgical resort. The most important one, and the one which may even be too liberal, but beyond whose limits surgery should never transcend, is immobility of the uterus. It signifies a forbidding amount of secondary deposit in broad ligaments, or a still more formidable complication, peritoneal adhesions. It has given me more disappointment than any other one complication, and has caused death from shock, abandonment of operation, and recurrence.

If physicians would only realize that the difference between early discovery of this desperately fatal disease, with its brilliant possibility of cure; and delayed recognition with contiguous implication that denies the only hope, is literally a difference between life and death. I cannot say definitely, but I think I have seen a dozen cases that were so far gone as to be hopeless, to one that was within the possibility of surgical relief. I believe mine is not an unusual experience. This ought not so to be. I am aware that some practitioners hesitate to operate or to even have consultation in merely suspected cases of malignancy, for fear of causing a sensation and bringing criticism on themselves. This is a great error. I do not believe any of my former pupils will be guilty of this. Better to suspect a dozen cases that are not than to err in one case that is malignant. The deplorably large number of cases in which the disease is so far advanced as to preclude all hope of relief by surgical means is astounding, and should be a rebuke to the profession, who should be the

CHARLES K. WINSTON, M.D., born in Greene County, Ky., July 8, 1811, died near Nashville, Tenn., March 29, 1882; Professor of Materia Medica and Therapeutics in the Medical Department of the University of Nashville from its origin to 1869; Professor of Obstetrics and Diseases of Women and Children from 1869 to 1873.

JOHN McCLARAN WATSON, M.D., born in Wentworth, N. C., November 20, 1796, died in Nashville Sept. 19, 1866; Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the University of Nashville from its origin until the date of his death.

guardian angels of their people, and by whose instruction and advice woman should be shielded against this terrible disease, and the still more terrible death which awaits her. There never has been a time in the history of medicine when the constantly increasing and unnumbered class who, from whatever unknown cause, are victims of the dread scourge of malignancy, could look forward to temporary, if not permanent relief, with such confidence.

In coming to the treatment of a given affection you will recall my custom in the class-room to emphasize the things you were not to do, with as much stress as I strove to impress what I believed to be the correct principles of treatment. It has been my constant endeavor to acquaint you not only with the accepted practices of the day, but to point out also what I considered to be the line of progress in the future. It was my contention years ago, when the surgery of complete removal of the uterus was clouded with dark records, that it was the only logical treatment for malignant disease, and I predicted the day to be not far distant when the wonderful advancement in surgery would place it in the pale of legitimacy. I am thankful that I have been permitted to live to see a consummation of that belief, and as I decried partial amputation as a mere resection of the disease, when it was in vogue, it is unnecessary for me to recite to you the arguments against its validity now. I can only explain the excellent reported results from that measure on the ground of the possibility of errors in diagnosis, and believing carcinoma to be strictly a local disease, to account for the large percentage of cases in the presence of actual disease, on the theory of early removal while completely localized and before the occurrence of extension. Far from commending it in these cases of apparent localization I can only regard the good results following it as extremely fortunate, because I have seen metastatic deposits, in the uterine body, after hysterectomy, that could not have been positively excluded or anticipated.

So that the apparently paradoxical rule of Pozzi: "The more limited the disease the more extensive should be the operation," is seen to be founded on undisputed pathological data and unquestioned surgical demonstration.

Pozzi says: "In thus removing the whole of the uterus the

result is certain; there is no opportunity for the disease to recur locally, and we avoid also ganglionic engorgement and invasion of the adjacent tissues, both of which have occurred where the treatment has been palliative and only partial destruction attempted. In other words, we simply apply here the rules which are accepted for external or general cancer."

The contra-indications, involvement of contiguous tissues, immobility of the uterus, and particularly extension to adjacent organs having been ruled out, I believe the most generally applicable surgical procedure is total extirpation by the vagina. Next to the perfection and popularization of abdominal section, the improved technique of pelvic surgery through the vagina, is the most signal advance in the domain of gynecology. Carcinoma was the classical indication for vaginal hysterectomy, and to its ever-present and increasing necessity for alleviation must be ascribed the achievements of this route as applied to other pelvic conditions. The immediate mortality is between two and four per cent. in the hands of the expert. The operation, as performed with forci-pressure, in lieu of ligatures, is more rapid and attended with less shock, and in my opinion is the procedure of election. I have long believed that the sloughing resulting from the forceps operation is conducive to the further destruction of undetected nodules, and thereby a protection against recurrence.

There has even been some effort made to use the toxins of the pus-producing bacilli, in inoperable carcinoma. Coley has had a gratifying meed of success with the toxins of erysipelas and bacillus prodigiosus in mixed culture. It seems to have given better results in sarcoma than in carcinoma, but I do not know that it has been applied to the uterus at all. I believe that many of you will live to see the successful application of some form of serum therapy to malignant disease. It will be the crowning triumph that science will bestow on humanity.

It is a well-known clinical fact that in carcinoma of the breast there are distinct cancerous groupings of cells in the axillary glands, so minute as not to be felt. This has led to routine clearing of the axilla of all its glandular contents, instead of simple excision of glands appreciably enlarged. The results of amputation of the mamma with this very important addition to the technique have been perceptibly bettered. This principle

ROBERT MASSINGILL PORTER, A.M., M.D., born in Nashville, Tenn., April 12, 1818; Professor of Anatomy in the Medical Department of the University of Nashville from 1851 to July 1, 1856, the date of his death.

WILLIAM THOMPSON BRIGGS, M.D., born at Bowling Green, Ky., December 4, 1828, died in Nashville, Tenn., June 13, 1894; Demonstrator of Anatomy in the Medical Department of the University of Nashville from its origin until 1865; Professor of Physiology and Surgical Anatomy from 1865 to 1866; Professor of Obstetrics from 1866 to 1868; Professor of Surgery and Clinical Surgery, all in the same institution, from 1869 to the date of his death.

has been extended to operations for carcinoma of the uterus. Clark, by ligation of the uterine artery beyond the vaginal branch, thus obtaining a bloodless field of operation, has cleared the pelvis of the connective and glandular tissue in the broad ligaments after removal of the uterus. This operation, so correct in its principle, has yet to demonstrate a decided improvement as to remote results before the objection of its greater danger can be overcome.

If the profession at large would only heed the lesson sought to be inculcated herein, viz: 1. Education of female patients to the danger of cancer at or about the menopause. 2. Early interpretation of suspicious symptoms, followed by immediate local examination. 3. Prompt surgical interference in malignant disease; it would be the means of adding uncounted years to the span of life in women thus afflicted. In conclusion permit me to emphasize one single statement: Medical treatment of uterine cancer is neglect—early surgical procedures, prompt and efficient, *rational*.

While we are awaiting with anxious expectancy the advent of the magical orrhotherapy that will liberate mankind from the thraldom of malignancy, let us not relax our efforts to detect its insiduous approach, and thwart its deadly advances by the timely and skillful institution of radical and immunizing surgery.

ENORMOUS HERNIA CURED BY BASSINI'S OPERATION.—Dr. George E. Brewer presented to the N. Y. Academy of Medicine, Feb. 8th, a man whom he had cured of the largest inguinal hernia that he had ever seen treated by the Bassini method. The hernia reached to the knees, was nearly 2 feet in circumference, contained 11 feet of intestine and about 2 pounds of omentum. Seven inches of the intestine were firmly adherent to the sac. Hemorrhage was severe, and it was neccessary to fold up in towels and apply hot salt solution for two hours before returning to the abdomen. The patient was told that the operation would probably result only in improvement, not cure, but sixteen months had elapsed without any sign of recurrence.—*N. Y. Med. Record.*

CLINICAL LECTURE—UTERINE FIBROMATA.

BY RICHARD DOUGLAS, M.D.,
Professor of Gynecology and Abdominal Surgery in Vanderbilt University—Medical Department.

Gentlemen: —We are indebted to Dr. Black for this very interesting case. She gives a history of long suffering. For years the nature of her trouble has been recognized, and like many others she has been beguiled with the assurance that relief would come with the change of life. That period has passed; her symptoms are unabated; and what is still more alarming, to her at least, the abdomen continues to enlarge rapidly. She is a negress, as you observe, age about 42, unmarried, nullipara. She has always suffered with some menstrual disorder, expressed usually as a violent dysmenorrhœa, at times metrorrhagia. There is leucorrhœa, thamuria, obstinate constipation, digestive disturbance, great weight and pressure in the pelvis, and a variety of referred pains. These symptoms suggest the necessity of a physical examination; pursuing this in a systematic way, you note by inspection the peculiar asymmetrical distension of the abdomen. She is larger than a woman at full term, but see how irregular and abrupt the enlargement. The abdomen looks not unlike a number of little mounds of hillocks. The right flank is unusually full and bulging, while the left has retained its normal waist constriction. Respiration appears free and unembarrassed; there is no pigmentation, striæ gravidarium or enlarged veins. The body is fairly well nourished, Scarpa's triangle plump enough, not a concavity, as we see it in some forms of abdominal disease.

By palpation we feel a number of hard globular masses, inelastic, some of them freely movable and all having distinct, well-marked outline. There is a large mass on the right side, reaching from Poupart's ligament to the ribs. This is smooth, fixed but like the others, densely hard. There is absolute dullness all over the tumor, the intestines lie in the epigastric, left hypochondiac and left lumbar regions, as is indicated by the

resonant note upon percussion. As you would anticipate, auscultation is negative. Digital examination per vaginam reveals a shallow pelvis filled by a hard mass; the cervix uteri lies high up behind the symphysis. It would be very difficult to pass the uterine probe, and as we do not require its aid to reach a diagnosis, I shall not make the effort. The clinical history and physical signs here presented is an old and familiar picture to you. I should be sorely disappointed in the diagnostic acumen of this class if the majority were not ready to proclaim the diagnosis of multiple uterine fibromata, and further more, the mobility of several of these distinct round tumors indicates them to be of the variety known as pedunculated, sub-peritoneal fibroids. Hemorrhage has not been a conspicuous symptom in this case; we may safely conclude, therefore, that the endometrium is not encroached upon, that there has been no effort at polypoid extrusion. In this case I think there are many centers of degeneration, originating, as they all do, in the muscular wall of the uterus, and have grown in the direction of the peritoneum. The location, *i.e.*, the pathological variety of these tumors, has a great deal to do with the consequent symptomatology. In the variety here encountered, pressure symptoms are unusually conspicuous, not infrequently there is an entire absence of all menstrual disorders.

It is well for you to appreciate the well-recognized clinical fact that the location and not the size of the tumor, is responsible for symptoms. A comparatively small tumor on the body of the uterus, may by its pressure greatly distress the bladder or rectum. Upon the other hand, you have frequently seen women at this clinic carrying a tumor as large as a Georgia water-melon with comparative ease and comfort. A very distressing complication sometimes encountered in the history of these cases, is the incarceration of the tumor in the pelvis, restricted by the promontory of the sacrum and the displaced and fixed uterus. The tumor so imprisoned continues to enlarge, makes unyielding pressure against the viscera and sacral nerves, producing great functional disturbance and unbearable pain. These cases are not infrequently erroneously diagnosed and unfortunately treated expectantly. Our invariable rule in all such cases when we cannot release the tumor by manipulation, should be an imme-

diate operation for its removal. The majority of deaths I have seen directly attributable to fibroid tumor occurred in the complications consequent upon incarceration. In the case before you there are two pressing indications for active interference: First, the continued growth of the tumor; and secondly, the serious impairment of the general health from prolonged suffering and functional disorders. It is useless to discuss the medicinal or electrical treatment of these growths, both are useless, the latter often dangerous. Relief can only be obtained by a radical surgical procedure involving the entire removal of the neoplasm, and all or a part of the uterus and its appendages. In former years in dealing with these growths I have employed the technique perfected by Bantock. I have been loth to abandon a method in which I have been so uniformly successful, and contend even now there are cases in which amputation above the constricting serre-noeud with ventral fixation, and extra-peritoneal treatment of the stump is the safest procedure. Yet we all must confess that this not a technically perfect operation, and very properly has been supplanted by complete hysterectomy or the method of Baer, amputation at the vaginal attachment after deligation of all arteries.

The patient is now anæsthetized, and I shall now undertake removal of the tumor, the tubes and ovaries, and the uterus above the vaginal attachment.

An unusually long incision is required, I do not anticipate many adhesions, yet in order to deliver the tumor it is necessary to open the abdomen from symphysis to within two inches of the ensiform. See the tumors as I hull them out, they look not unlike a great bunch of potatoes? The large tumor on the right lies well up under the liver; there are no adhesions, and with the assistance of atmospheric pressure it is easily delivered. Intrusting the mass to my assistant, Dr. Marr, I now ligate the infundibulo-pelvic ligament on each side, thus securing the ovarian arteries, grasp the uterine side with forceps and cut between these and the ligatures. The round ligaments are now each secured with separate ligature. Observe the white line on the anterior surface of the uterus, this indicates the reflection of the peritoneum from the bladder. This is cut through completely across the front of the uterus. You see I easily detach the

bladder, and pushing it well forward hold it out of the way with a sponge. As yet, bleeding has been inconsiderable. The broad ligaments are now open on this, the left side, I can distinctly feel the pulsating uterine artery. To secure this close to the uterus and avoid injury to the ureter is a critical point in the operation. Yet I am impressed this danger is generally magnified, if the precaution is taken to free the bladder before attempting the ligation. I now pass the beak of Cleveland's pedicle forceps one-half inch from the uterus, well under the artery, but I am careful not to puncture the vagina. A strong No. 4 silk ligature is now caught in the forceps and the instrument carrying the ligature withdrawn. Carefully securing this ligature I may now pursue one or two courses: direct my attention to the other side and repeat the above procedure; or as I prefer to do, take Kelly's suggestion and cut through the uterus until you reach the opposite side. By turning the tumor well out and to that side, you can easily tell when you approach the uterine artery. This is now grasped with forceps, and cutting wide to the uterine side, the tumor and all the supra-vaginal portion of the uterus and its appendages are removed, the uterine artery is now easily secured. Unquestionably this modification in the technique greatly lessens the danger to the ureter of that side. A few minor bleeding points in the broad ligament are caught with forceps and all carefully ligated with very fine silk. All ligatures are cut short. The cervical canal is now touched with carbolic acid, and the open broad ligaments are closed from the pelvic wall of one side to the other. The pelvic cavity is perfectly clean, not a raw surface can be seen; drainage is not required. The warm towels which have been placed over the intestines are now removed, the abdomen closed and dressed in the usual way. The patient left the table with a full strong pulse; there has been no hemorrhage, or needless manipulation of the intestines, therefore no shock.

In the case above detailed the recovery was uneventful. The patient returned to the clinic a well woman in three weeks.

PAIN.*

BY T. A. ATCHISON, M.D., OF NASHVILLE, TENN.

Mr. President and Gentlemen of the Academy:

You will readily believe that, when I was called upon to address you I did not select "Pain" as the subject of the discourse. It was chosen by your committee. Pain has been the riddle of the Sphynx and the puzzle of the ages. Poets, prophets, philosophers, scientists and lexicographers have defined it in terms of phenomena. No one has ever attempted its definition in terms of causation. I asked a distinguished member of your Academy to give me a definition of pain. He aptly replied that it was "abnormal sensation." This only removed the difficulty a step further, for the question at once arose, "What is sensation?" The universal ignorance of the subject is not due to a lack of opportunities for studying it, for it has been the lot of all men, in all times, and under all circumstances, to feel the pangs of pain. The first and last act in the "Drama of Life" is made tragic by it. We must then begin by seeking the cause of pain and possibly we may find it among the heterogeneous movements of matter under the direction of force. But, what is force, may be asked? The only reply which science can make is that it is an ultimate fact of consciousness along with time and space, the ego, and future state of being.

It is agreed that force imparts motion to matter, and that it has manifold modes of expression. Physicists talk of stable equilibrium and unstable equilibrium, about homogeneity and heterogeniety of force, and the conservation of energy, which means simply the correlation of forces, and it is right they should discuss it, for it forms the essence of the every existence of things, ponderable and imponderable, tangible and intangible, and pervades the ether which invests every atom of matter,

*An address delivered by request to the Nashville Academy of Medicine, Wednesday evening, April 7, 1897.

endowing it with motion. Scientists further agree that motion flows in lines of least resistance.

Now, you will pardon me for my seeming digression in introducing these scientific data, but I intend using them in building a hypothesis in regard to the cause of pain. I would premise by saying that evolution is simply the unfolding from the simplest to the most complex form of organisms. Here we have force and matter, out of which the Almighty has created, not only the earth, but the solar and the stellar systems, and prescribed the revolutions and limitations of the same, and out of the same force he has created all living organisms. It is easy then to conceive the correllations of the vital forces with the physical forces, and it is safe to affirm that living organisms are more complex than inorganic substances, and that they posesss a more unstable equilibrium, and that the instability of equilibrium which increases with the complexity of the living organism, finds its greatest instability in man.

Now sensation may be found as low down in the scale of beings as the sentient nerve can be traced. It may be safely inferred then that sensation is the function of that class of nerves. But it must be stated here that there are subjective sensations as well as objective. Wherever there is grey matter associated with nerve matter there is capacity to generate force which may arouse sensation equally with that of objective causation. Thus we have a dual source of sensation, and consequently a dual source of pain.

Now, we may infer that the nerve cords perform the office of receiving and transmitting sense impressions to the sensorium where they are cognized as sensations pleasureable or painful. How they are cognized is in the present state of our knowledge absolutely unknowable.

Now, for illustration. Suppose that a heated body is brought near to an exposed surface. The heat sets the molecules of the atmosphere into a cyclonic disturbance. The nerves of the skin, the end organs of sensation, likewise made up of minute atoms, each of which is separated from its brother atom by imponderable ether, are also violently disturbed, the molecules of ether which infest the molecules of nerve matter receive the impact from without, and thus the sensation is propagated

throughout the conducting cord to the cognizing center, the degree of pain depending upon the intensity of the disturbance. Thus sensation passes throughout all grades from pleasure to pain under the operation of this fundamental physiological law that animal life, from the lowest creature endowed with a nervous system, to man, sensation will vary according to the degree of development of this nervous system, and the degree of force to which it is subjected. Pope says that the worm trod upon feels a pain as great as when a giant dies.

Nor are we justified in accepting the theological interpretation of pain, in view of the fact that all human beings, and even many of the lower animals suffer alike.

Now let us see how this theory fits the phenomena of disease. All diseases are either caused by, or associated with disturbances of sensation. A wound anywhere inflicted sets in motion these vibratory waves of sensation which, when intensified, become pain, and inflammation in any of the tissues or organs, have a like effect in proportion to their capacity for receiving increased blood supply. The whole system is raised to a condition of heterogenetic commotion by an attack upon any of its parts A starved nerve gives rise to the same phenomena, and we have here the most inveterate neuralgia as the result. Disturbances caused by an infusion of poison or bacterial forms of disease produce a like result. In other words, all diseases and accidents are disturbers of normal nutrition and normal sensation which are the exponents of health.

That sin against the law of hygiene is a prolific cause of disturbance will be readily admitted, but a moral sin is no more likely to modify the physical condition of man than religious fanatacism.

Pain has been universally condemned as the enemy of man, but are there no mitigating circumstances? Pain is the lash which whips men into some sort of obedience to the laws of his being, and it stimulates the mental faculties to a devisement of means for its avoidance and mitigation. It has instituted industrious efforts in man as well as the lower animals to provide food, clothing and shelter as a defense against its inroads. In short, pain has urged men all along their steps of progress, from his primitive state to his highest social development, and it still

preaches the Christian virtues of prudence, temperance and frugality, though but little heeded in these days of luxury.

Rest is the antithesis and remedy for pain. If pain be the expression of the hetrogeneity of force, rest is the return from that hetrogeneity to the normal homogeneity. Or, in other words, it is a return from an unstable towards a stable equilibrium. Sleep is the highest expression of rest. Shakespeare forcefully says—

> "Sleep, that knits up the ravelled sleeve of care,
> The death of each day's life, sore labor's bath,
> Balm of hurt minds, great nature's second course,
> Chief nourisher in life's feast."

With sleep the strength of the weary laborer is restored and he greets the coming morn with renewed vigor and energy. Misery is forgotten in the balmy hours of sleep, and with the slumbers of the tired and weary the toils and disappointments of the previous day are buried. Sleep, then, is the most precious gift that God could have conferred upon mankind. The lower animals understand better than we the theory and power of rest. The wounded deer will seek the leafy cover of the shade and there rest until the wound be healed. The stricken eagle will rest in his eyrie until his pinions be strong enough to again greet the sun.

Let us as physicians imitate in our practice this great lesson in nature. Rest is what Hippocrates called *vis medicatrix naturæ*. It is this effort of nature to cure disease by rest that is expressed in the effusion of serum for the relief of plurisy. It is the enforcement of rest which is expressed in the coagulated lymph around injuries to the soft parts, and it is this wise suggestion of nature which takes away muscular power and sends the victim of acute disease to the recumbent position. And, lastly, it is this demand for rest which takes away the appetite from the gourmand. Everywhere, in all phases and forms of organic life, rest is an imperative necessity both for the performance of healthy functions and for the restoration of lost balances of functions.

It would be well for us as medical men to heed these lessons and to rest our patients from pills and potions. Often the physiological actions of medicine, modified by idiosyncrasies, are

mistaken for disease, and other prescriptions are introduced with like disastrons results, and no man can tell how many deaths are justly chargeable to poly-pharmacy. It would be better if we would content ourselves by ministering to nature and not assume the rolè of master. I do not mean to deny the efficacy of medicines wisely administered, but I do insist that there are cases in the history of every disease and the time when medicines should be suspended and nature given an opportunity to reassert her powers.

The Divine Master invited all who were weary and heavy laden to come unto Him and He would give them rest. He did not offer them power, nor riches, nor wisdom, nor length of days—but rest. A more princely boon to the weary and heavy laden than all the powers and principalities that earth could confer. Thus Shakespeare and the Divine Master agree in exhalting rest above all blessings which can be conferred upon the toiling, anxious, suffering humanity.

But one of the most curious phenomena of pain is that man is himself both the victim and the cause of nearly all the pain which is suffered by the race. The self-inflicted pain of the ascetic, the cruel treacheries of tyranny, the merciless chastisements of homes and schools, of prisons and reformatories makes the world vocal with pain; while every battle field of ancient and modern times shrieks out the agony of the wounded and dying. It is well as Pope said, "Man's inhumanity man makes countless thousands mourn."

What is the remedy for this collossal evil. Let the ministers return from the gospel of cruelty to the gospel of love, and let the physicians return from their drastics to rest, and it would be a step toward that millenium where the lion shall lie down with the lamb, and all will be peace and joy.

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ANNUAL ADDRESS BEFORE THE ACADEMY OF MEDICINE.

BY THE PRESIDENT,

A. M. TRAWICK, M.D., OF NASHVILLE, TENN.

Gentlemen:—In retiring from the honorable position of President of the Nashville Academy of Medicine, I beg leave to express without reserve the sentiments of my heart. I am grateful for both the confidence and esteem which prompted your action in placing me in the presiding officer's chair. I thank you for the courtesy which has characterized our official relations, and may I not add, for the personal interest so kindly shown during a time of disability and suffering. The good will and confidence of my professional brethren has been the more appreciated since there is a consciousness of personal unworthiness and failure to merit so much at your hands. But I have at least tried to be a man.

Goethe, the great German poet, has said: "One can not always be a hero, but one can always be a man." There is little of the heroic in the actual conditions which attend most lives; on the contrary, there is much that is commonplace. But it is the commonplace that builds character; and character, the greatest thing in man, may always touch the heroic as mountain peaks touch the sky. The humdrnm duties of daily life, faithfully performed; the hourly routine of professional work, carefully and conscientionsly attended to; these go to make up an honest man, and an honest man has been declared the noblest work of God. To be heroic the round of commonplace duties must be cheerfully accepted and honestly performed. Out of such performances comes an idealization of the real and a realization of the ideal.

One of the most pathetic and yet inspiring characters in literature was Charles Lamb. Forced by untoward circumstances to drudge for his daily bread, it also fell to his lot to care personally for an insane sister. Who can fathom the dreary

depths of some of those dark hours? But out from these ceaseless vigils he came, again and again, with cheerful face and kindly eye to make his contribution of quaint and quick humor to a world as much in need as he. An illustrious example of the heroic growing out of the commonplace.

The need of the world to-day, is more professional men of the heroic type, who practice plain living and love high thinking—men who have quickened conscience and the courage of their convictions. Such a man may be poor and yet infinitely rich; and why? Because he is—

> "Lord of himself, though not of lands,
> And having nothing yet has all."

Who can estimate the power of a sensitized conscience? As the needle, though in vibration steadily seeks the pole, so does a healthy conscience plumb the line of right, and far more than any code of ethics, points from the wrong.

Ogden Doremus, for years Professor of Chemistry at Bellevue Hospital Medical College, contributed an article to the *Forum*, sometime since, on the Spectroscope. He illustrated the delicacy and responsiveness of the instrument by the following unique experiment: Moistening the tip of the index finger on the tongue it is made to touch some lithium salts. Applying the finger once more to the surface of the tongue the salts dissolved and were absorbed. Within five minutes, a platinum ribbon passed gently over a square inch of the forehead would, when placed in the spectroscope, plainly show the red and yellow lines of the lithium.

A conscience for the individual and for the nation which will give quick response to the golden lines of the true, the beautiful and the good, or warn us of the dull, red glare of evil and of sin, is of paramount importance. A conscience involving a sense of personal obligation to do one's whole duty is as much necessity for citizenship as for the narrower spheres of domestic and professional life.

In President Cleveland's address, on January 29th, at the semi-centennial celebration of the New York Academy of Medicine, the following sentiment occurs: "We cannot but think that the discoveries and improvements in the medical practice which we now enjoy are dearly bought, if the members of the

profession in their onward march have left behind their sense of civic obligation and their interest in the general public welfare. We cannot accuse you of utter neglect of duty to the country, and yet we cannot keep out of our mind the suspicion that if your professional work in exposing evils were more thoroughly supplemented by labor in the field of citizenship, these evils would be more speedily corrected."

In speaking of the loyalty of the patient to the family physician, the President finds its root in this very conscientiousness of service upon the part of the latter, in his sympathy, and self-abnegation in the discharge of duty. He says: "Your ways are better than his, but we desire you to regard this admission as all the more valuable because it is carved out of our loyalty to our old village doctor, who brought us through the diseases of childhood without relapse, who saved from death our parents and our brothers and our sisters in many a hard combat with illness, and who, when vanquished and forced to surrender, was present in the last scene to close the eyes of his dying patient and sympathize with those who wept. I hasten to say that we do not for a moment suppose that advancement in the science of medicine and surgery has smothered the faithfulness and tender consideration which characterized the practitioner of former days. If we seek charitable service to the sick and suffering, a noble appreciation of obligation to humanity, and self-abnegation in the discharge of professional duty, we must look for them among our physicians and surgeons of to-day."

It is not saying too much to make the assertion that we have not far to look for what President Cleveland speaks of as examples of sympathy and self-abnegation in their noble ministry to the sick by our professional brethren. In both there is the impress of the Spirit of the Great Physician who was so full of compassion that it was said, "Himself took our infirmities and bare our sicknesses." With such a spirit as this characterizing our relations to our patients, or to each other, we would forever eliminate that "cool satiric temper, the skeptical spirit, and the lack of faith which flow together to make the pessimistic mood," and which "are never favorable to those great enterprises which register the high water mark of human energy, of those great achievements of art which measure the height of

human spirit in its noblest productive movements, nor of those splendid flashes of unselfishness sometimes disclosed through a long life, which shed a divine light upon human character." With such a spirit we could forever banish the bigotry, the jealousy, the vanity and the indolence so faithfully described by the President of the State Medical Society in his paper read before the Sixty-third Session at Chattanooga. DeTocqueville never wrote a truer thing than that, "He who despises mankind will never get the best out of others or himself." It is in the heart of this very sympathy which lies deeply embedded in all faith, in all hope and charity that we find the forces which lift men to higher levels, prompt to greater thoughts and inspire to noble deeds. Let us look for a moment at the opposite picture. How utterly detestable the moral leper! Instead of avoiding the haunts of men he seeks his victims in order to prey upon them.

A discerning poet has in a few apt words struck off the whole tribe of trifling tricksters:

"But now our quacks and gamesters, and they play
With craft and skill to ruin and betray;
With monstrous promise they delude the mind
And thrive on all that tortures human-kind;
Void of all honor, avaricious, rash,
The daring tribe compound their boasted trash;
Tincture or syrup, lotion, drop or pill,
All tempt the sick to trust the lying bill;
And twenty names of cobblers turned to squires
Aid the bold language of these blushing liars.
There are among them those who cannot read,
And yet they'll buy a patent and succeed;
Will dare to promise dying sufferers aid,
For who, when dead, can threaten or upbraid?
With cruel avarice still they recommend
More draughts, more syrup, to the journey's end;
'I feel it not.' 'Then take it every hour;'
'It makes me worse.' 'Why, then, it shows its power;'
'I fear to die.' 'Let not your spirit sink,
You're always safe while you believe and drink;'
How strange to add, in this nefarious trade,
That men of parts are dupes by dunces made;
That creatures, nature meant should clean our streets,
Have purchased lands and mansions, parks and seats;
Wretches with conscience so obtuse, they leave
Their untaught sons their parents to deceive;

And when they're laid upon their dying bed,
No thought of murder comes into their head."

We turn from this picture, which is unfortunately familiar to us all, and sincerely hope the day is near at hand when this type of charlatanism shall become extinct.

Ours is a high art. The world has come to recognize it as such. It is a high art to restore the function of a depraved organ, the contour of a wasted muscle, and the power of an exhausted nerve. But that art is still higher which restores to the blurred and debased soul the image of the Creator in whose likeness the human coin was struck from the divine mint. If we may hope for this restoration in ourselves we may expect to be made instrumental in recovering it for others. The Great Physician, by his character, pre-eminently enforces the necessity for an impartation of life.

"I came," He said, "that ye might have life, and that ye might have it more abundantly." Far be it from me to claim his power to create or even impart life which is only in the gift and power of God. But, by a subtle law, force is continually transmuted into other forms of power. The rain drop swells the Mississippi and floats great vessels to the sea, while the sunbeam lays the coal-beds or noiselessly expends its resources in restoring the bloom of health to the wasted cheek of some poor suffering child.

God help us to do our duty in the day of our opportunity. As we give of our strength we shall receive it again. It may be in the smiles of the folks we have helped, it may be in the tears of weak men and bairns, it may be in our own souls with a sense of duty done even at our own loss. What matter? God knows, and God cares. To Him, when the last hour comes, we can offer the prayer made by Drumsheugh for Weelum MacLure, the faithful old Doctor of Drumtochty of the old school:

"Almighty God do not be hard on Weelum MacLure, for he has not been hard with anybody in Drumtochty. Be kind to him as he has been to us all for forty years. We are all sinners before thee. Forgive him what he has done wrong, and do not cast it up to him. Mind the folks he has helped—the weak men and bairns, and give him a welcome home, for he is sore needing it after all his work. Amen."

NERVOUS DISEASES—TREATMENT.

BY DEERING J. ROBERTS, M.D., NASHVILLE, TENN.

In every-day practice there are few occasions more trying and taxing on both physician and patient than those cerebro-nervous affections so often presenting themselves in connection with pathological conditions in both married and unmarried women. "The commencement of menstruation," says Dr. Thos. More Maddin, of Dublin,* "is marked by a sudden and complete revolution in the female mental as well as physical constitution, whilst at each succeeding monthly ovulation there is a coincident recurrence of constitutional and nervous disturbance acting on the general economy through the wide-spread ramifications of the vaso-motor and sympathetic systems." Furthermore, all practitioners are well aware that few women indeed are always entirely free from nervous disturbances, such as neurasthenia, neuralgia, and other manifestations of an active or passive character, in many instances remarkably rebellious to any and all. forms of treatment.

The above quoted distinguished author and clinician, who is sustained by all reliable observers, further states that "Foremost among the constitutional remedies by which we may hope to allay the abnormal nervous susceptibility or perverted molecular activity of the nervous centres are the special nerve sedatives," making special allusion to the bromides, zinc, and others of like character.

We all know the dangers resulting from the use of such hypnotics and narcotics as opium, morphia, chloral, etc., and the general unsuitability of drugs of this class. Alas! how many bright and joyous lives have been wrecked and ruined by a resort to these narcotics, from time to time, until the special "drug habit" pertaining to the one or the other has been fully developed, the last condition of that individual being far worse than the first.

*International Medical Annual, 1896, p.249.

Having tried time and again many and varied combinations of nervous sedatives and anodynes, ever keeping a sharp lookout for the possibility or liability of setting up a habit far worse than the disease for the relief of which my aid was sought, I was much interested and my mind greatly impressed when I came across the following combination:

℞ Potas. Bromid.....
Sodium Bromid.....
Ammon. Bromid.....aa.....grs. 160
Zinc Bromid .....grs. 4
Ext. Cannabis Indica.....
Ext. Belladonna.....
Ext. Henbane.....aa.....gr. ss
Ext. Lupulin.....grs. 128
Fl. Ext. Cascara Sagrada.....min. 160
Elixir Aromatic, q. s. ut. ft. fl. ℥ iv—misce.

S. Teaspoonful to dessertspoonful as needed.

This formula is prepared in a perfect, and not unpalatable, form by *The Dios Chemical Co.*, under the proprietary name of *Neurosine*. It is a combination that might be compounded by practical and competent pharmacists, but these are not always accessible to the general practitioners throughout the country, and even though they were, it is preferable to use a preparation compounded by a reliable and trustworthy pharmaceutical establishment making a specialty of its preparation, and who have obtained a reputation thereby, rather than to trust to the uncertain strength of drugs compounded and dispensed by druggists in many localities. Furthermore, it can be procured at a more reasonable price to the consumer, which is no small measure in these hard times. It is true it is a proprietary preparation, but this makes it none the less a distinct compound of known and definite strength and composition. Its use is none the less ethical or rational. None of the drugs in it are of doubtful utility; all are well known, have been long tried, and we have here presented in permanent and palatable form an excellent and efficient combination. No one was a greater advocate for the combination of various remedies of like therapeutic effect than the great Trousseau himself, and all who have given the subject careful study fully coincide with him. I have been using this preparation nearly two years past, and with most satisfactory results in quite a number of cases, as the following brief notes will show:

Mrs. J. D., æt. 50 years, mother of eight children; menstruation had ceased some six years ago. Had all her life been subject to repeated attacks of neuralgic headache of most agonizing character, coming on at irregular intervals, three or four to six or seven attacks each year. Had been blessed with most excellent health all her life with this exception. Her father had similar attacks from early life up to a short time prior to his death, at the age of 69 years. These attacks would completely prostrate her, the pain being so intense. Nausea and vomiting invariably set up after five or six hours of pain, which would usually persist for eighteen or twenty-four hours longer, and then subside, leaving her completely prostrated for several days longer. Having exhausted every possible remedy or combination that I could devise in a number of years, with no better success than had been obtained by others in this particular case, about one year and a half ago, while visiting another patient at her residence, she announced to me that one of her usual visitations was at hand. I immediately gave her one teaspoonful of Neurosine, with directions to repeat it in two or three hours, if needed. I also gave her an alterative and laxative composed of aloes, rhubarb, ipecac and calomel. Five doses of Neurosine were taken during the ensuing twenty-four hours, and the attack failed to develop. Four times since, in the last eighteen months, she has resorted to a similar procedure with like result, it being the first period of more than a year that she can remember during which she entirely escaped. This is only a typical case of quite a number of others of very similar character which have received more relief from this combination than any other previously tried.

B. M. R., æt. 17 years, blonde, pale, sallow, and rather tall and slender for her age, was brought to me by her mother, nearly two years ago, with the statement that menstruation first showed itself in her fifteenth year. It was scanty, accompanied by intense pain for the three or four days it lasted, completely prostrating her for nearly a week following. During that year it only appeared three times, the next year about seven times, during the past year occurring at intervals of from five to six weeks. A little more free now than at first, but still intensely painful at each recurrence, causing her to keep her bed for more than a week each time. I advised keeping the bowels open with mild

laxatives if needed; ordered her to commence the use of *Dioviburnia* (prepared by the The Dios Co.) in teaspoonful doses just before each meal and at bedtime. As soon as she felt the first precursory pains, which she had now come to readily recognize to take Neurosine, one teaspoonful, and repeat as often as needed, but not oftener than every three or four hours. With the use of not more than one fluid ounce of this very effective combination the four succeeding days were passed in comfort, the flow more free than usual, and no prostration whatever ensuing. I advised leaving off the Dioviburnia for two weeks, and then to commence its use again, and to continue it until the next period should arrive, resorting to the Neurosine again as before. These directions were carefully carried out for about four months following, never using more than four or five doses of Neurosine at any period, and for the past six months she has been regular as a clock, and only occasionally takes one or two doses of Neurosine at the commencement of a period. As much exercise in the open air as possible, proper attention to her bowels, and general hygienic details were advised and carried out between the periods, and she is now quite robust, with clear and ruddy complexion, a picture of a young and healthy woman. This also is but one, yet a typical one, of a series of similar cases.

Mr. R. J., æt. 47 years, had for years been addicted to periodical sprees—"filling his tank" to its utmost capacity for ten days to two weeks, then suffering the usual horrors and tortures for three or four days, followed by total abstinence for three or four months, sometimes longer. Was all his life quite healthy, attributed his drinking bouts to periods of depression following excessive physical or mental labor. Was an active, energetic business man who worked both brain and body. Called to see him at the termination of one of his storms. Found him suffering from insomnia, nervousness, thirst, headache, and the usual horrors necessarily concommitant to a ten days' excess of alcohol. Gave him at once a good mercurial and vegetable cathartic and Neurosine two teaspoonsful. He slept well all night, bowels moved freely the next morning; ate a light breakfast and resumed his usual duties. One teaspoonful of Neurosine was repeated that night at bedtime, and the following night. He said that he had got off easier that time than ever before, but did not want the

necessity to occur again, even if he did get off so easily. I advised him, when he again felt the inclination to "tank up," to immediately take a teaspoonful of Neurosine and repeat it three or four times a day; at the same time to take 1-32 grain strychnia sulph. just before each meal, continuing the latter for ten or fifteen days, leaving off the Neurosine as soon as he found the inclination for a stimulant subsiding. This he has done for the last two years without a single debauch arising. In quite a number of other cases of acute alcoholism, and in two cases of delirium tremens this combination has proven most satisfactory in my hands. It has none of the dangers of opium, morphia, chloral, and other preparations. As a hypnotic in these cases, affording rest to the overwrought and harrassed nervous system, it has proven most beneficial.

I have given briefly the outlines of the three above types of nervous derangement, which with other cases of a similar character; and in epilepsy, while it will not cure, it has acted very efficaciously; in paroxysms of asthma, when other remedies had failed; and in some cases of hysteria, when I wanted a nervous sedative with the least harmful after-effects, I have found Neurosine so uniformly satisfactory that I but deem it my duty to let others know the benefit I have derived from it. Other cases might be cited, but it is unnecessary. This preparation has been endorsed in most favorable terms by my former contemporary, the late Dr. F. L. Sim, when editor of *The Memphis Medical Monthly*, and L. B. Edwards, M.D., editor of *The Virginia Medical Semi-monthly*, and others well known as the most ethical of the ethical, who have tried it in the scales of experience and found it *not wanting;* and although it is a "proprietary preparation," it is a most effective and satisfactory combination, and in accordance with the time-honored Hippocratic oath, "I will follow that system of regimen (or treatment) which, according to my ability and judgment, I consider for the benefit of my patients."

In cases of dysmenorrhœa due to organic conditions of the uterus or its appendages, I do not expect it alone to cure, but it will prove a most valuable aid to any local measures that may be necessary. At a meeting of the Brooklyn Gynecological Society in November last, Dr. A. J. C. Skene* in speaking of

*Brooklyn Medical Journal, Vol. XI., No. 3, p. 185.

this condition said: "You are very well aware that dysmenorrhœa may be due to one of four causes: First, dysmenorrhœa due to structural lesions of the uterus itself, malformations, or an undue density of the structure of the uterus which interferes with the hyperæmia that occurs with the menstrual wave; dysmenorrhœa due to inflammatory affections of the uterus; and there is a dysmenorrhœa which is not properly named, and that is pain during menstruation due to ovarian disease; and lastly, a pure nervous dysmenorrhœa, or a dysmenorrhœa that is a pure and simple neurosis." In the three first forms Neurosine will prove a most valuable adjuvant to any local or general gynecic measures that may be instituted, and supplies a want that all general practitioners have often needed, and for which only too frequent resort has been made to narcotics and anodynes from which temporary relief has been obtained at the expense of future long-standing, if not permanent detriment. In the last form of dysmenorrhœa, especially that occurring as it so frequently does in the unmarried female, I have found it peculiarly invaluable. I have always most earnestly protested against a resort to instrumental treatment in such cases, except as a *dernier resort*, and only after long, patient, persistent and rational therapeutic measures of a general character had been tried. In such cases in the recent past I have had the most satisfactory results from Neurosine combined with Dioviburnia, together with such other measures of a therapeutic and hygienic character as seemed to be most indicated.

SUBSTANCES INCOMPATIBLE WITH ANTIPYRIN.—1. Those which precipate the antipyrin, such as phenic acid in concentrated solutions, tannin and its preparations, tincture of iodine, chloride of mercury, etc. 2. Those which decompose antipyrin when triturated dry with it: calomel, which forms with it is a toxic combination, naphthol, chloral, which forms an oleaginous liquid; sodium bicarbonate which generates an odor of acetic acid; sodium salicylate, which also forms an oleaginous compound with it, and lastly the salts of quinine and caffein, whose solubility is increased by antipyrin.—*Journal A. M. A.*

Selections.

WHO FIRST AMPUTATED THE LOWER JAW?

As the first article of our "Selections" for this month, with pardonable pride, we give precedence to the following from *The East Tennessee Record of Medicine and Surgery*, edited by Frank A. Ramsey, A.M., M.D., and published in Knoxville, Tenn., April, 1852.

To the Editor of the Boston Medical and Surgical Journal:

SIR:—In the New York Journal of Medicine for January, 1852, it is stated, and that, too, by an American surgeon having some claim to distinction, that "To Dupuytren was reserved the glory of having, in 1812, first removed, by a methodical operation, a portion of the body of the inferior maxilla." If by this, we are to understand simply, that the first time the French surgeon performed this operation was in 1812, very well; we do not dissent, but accord to him all the glory that he deserves for his surgical skill and daring. But if, as is the more probable, the writer means to assert that Dupuytren, in 1812, performed the first operation of this kind *ever* made on the lower jaw, we deny the assertion with astonishment that a professor of surgery, in a city where such abundant means are at his command, of acquiring correct information in regard to facts that have now become land-marks in the history of surgery in this country, should make such an unwarrantable blunder. He is either utterly regardless of the honor due his countrymen, and captivated by the *prestige* of a great name, or strangely ignorant of the history of that science in our country, which he professes to teach.

But to the proof. Prof. C. correctly states that Dupuytren performed his operation in 1812. But if he will refer to the American Medical Recorder, Vol. VI., p. 516, he will find the report of a case of "*Removal of a portion of the Lower Maxillary Bone*, by W. H. Deaderick, M.D., of Rogersville, Tenn." This operation purports to have been performed in 1810, thirteen

years previously to the date of the report of the case. Now, if ten from twelve leaves two, why it is plain that all the glory which the learned professor is disposed to reserve for the tardy French surgeon, is due our own ingenious countryman. And he has received this glory from those most capable and worthy of bestowing it, both at home and abroad. Dr. Mott acknowledges the case in a note to his letter to Dr. Liston. (Mott's Velpeau, Vol. II., p. 917.) Dr. Smith (A System of Operative Surgery, &c., Part 1., p. 38) remarks of it as "claiming justly to be the first operation of the kind ever performed, being two years before that of Dupuytren." Mr. South (Chelius' Surgery, Vol. III., p. 745) says: "As will be presently seen, Deaderick was the first who, in 1810, cut away the side of the lower jaw; in 1812, Dupuytren sawed off a large portion of the front of the jaw." Again, p. 749, "Deaderick, of Rogersville, Tenn., is *justly entitled to the merit* of having first, in 1810, amputated a portion of the jaw of a child of 14, &c."

Having thus given to Dupuytren the glory of the first amputation of the lower jaw, without even alluding to the claims of others, he thus summarily disposes of the claim of Walther, of Bonn, of being the first to remove the *entire* lower jaw, and like the great French surgeon, walks off with the glory in reserve for *him*. "In the Annals of Surgery there is an allusion made to the amputation of the *entire* lower jaw, by Walther, of Bonn; but I have not been able to trace the truth of it to an official source." What is meant here by *official*, we do not know; but if standard authorities are to be believed, Walther, of Bonn, did perform such an operation. Malgagine not only notices, but describes the different steps of his operation, in his work on Operative Surgery.

We conclude by commending to the consideration of Prof. C. the following just reflections of his venerable preceptor. "We cannot permit ourselves to believe that any surgeon of rank, possessing the high moral character which it is presumable should, or we might say, must necessarily belong to at least the distinguished members of the medical profession, as the guarantee of eminence and respectability, would willingly or wilfully deprive another of the honor that belongs to him."—(*Mott.*)

New York City, Jan. 1852. J. C. O.

THE SERUM DIAGNOSIS OF TYPHOID FEVER.—Communications requesting information having been received as to the Widal method of diagnosis of typhoid fever, we extract the following from an article by Dr. John Eliot Woodbrige, of Cleveland, Ohio, in *The Columbus Medical Journal* of March 30th ult.

The serum test for typhoid fever depends upon the development in the system and appearance in the blood of a specific toxin. One would, therefore, expect that its reaction would be present only in late stages of the disease, and to the fullest extent only in severe attacks. The latter is found to be true, but the characteristic reaction has sometimes been observed as early as the second day. It is, therefore, probably available early enough, in a majority of cases, to enable the scientific physician to save the lives of practically all of his patients, if the latter realize their danger and do not delay in seeking advice.

The technique is simple. The finger tip or lobe of the ear must be thoroughly cleaned and dried; it is then pricked with a sterilized needle and the exuding drop of blood allowed to flow on a bit of sterilized glass and dried at room temperature. In this condition it will keep for sixty days or longer, and may be mailed to any distance. To make the test one should have a good microscope, but an ordinarily good one will answer the purpose. The only absolute essential is a perfectly pure culture of Eberth's bacillus, of suitable attenuation. Dr. Johnston says "it is found that old laboratory stock cultures kept at room temperature and transplanted at intervals of about one month give the best results. Bouillon test cultures from the stock grown for 12 to 24 hours at body temperature are found to react decisively with solutions of typhoid blood or typhoid serum, the reaction being as a rule well marked within fifteen minutes. With non-typhoid blood or serum solutions, the same test culture gives no reaction, even after 24 or 48 hours."

A little sterile water dropped on the dried blood and allowed to remain two or three minutes and then stirred with a platinum loop until a faint tint appears, will carry all that is necessary of the antitoxin. A little of this faintly tinted serum mixed with the test culture and examined as a hanging drop, will within fifteen minutes, if the blood be typhoid, show all of the bacilli immotile, and the latter will gather in little agglutinated islets

or masses. Sometimes the reaction is not complete in the short time mentioned, but if after a sufficient time has elapsed, any of the bacteria are seen to move from place to place, it is not safe to pronounce the blood to be typhoid, even though practically complete agglutination has taken place. A little flagellar motion cannot be regarded as a negative result. Pseudo-reactions are, however, sometimes deceptive, and control observations should be made to exclude, as far as possible, every source of error. The cultures should first be examined to see that they possess the requisite motility—then examined with blood that is known to be typhoid—then with healthy blood—and in case of a negative result, the blood should be examined to see that it contains no motile bacteria.

Care should also be taken to exclude errors from extraneous causes, *i. e.*—previous attacks of typhoid, which sometimes give a distinct reaction after many years. Mons. Weinberg, Interne of the Hospital of St. Denis, France, examined the blood of seventeen persons who had typhoid fever in that institution. Of these, four cases gave distinct and two slight reaction. It is interesting to note that one of those which gave slight reaction had the disease only four years ago, while one of the very distinct reactions had the disease twenty-seven years ago. The other cases were as follows: One at ten years, one at thirteen, one at seventeen, and one at twenty-two years.

As to the reliability of the sero-test, Professor Wyatt Johnston says, "that of 143 specimens sent to him for examination, eight arrived in a condition unfit for examination and were rejected. No further selection of cases was made and they were diagnosticated by the serum test alone without any knowledge of their clinical histories. Of these 143 cases, 118 gave positive reactions on the first examinations, 112 of them being complete, and six partially so. In three of the six the drop was taken before the third day of the disease. Five cases were doubtful on the first examination and decisive on the second. In four of these the blood was taken before the sixth day of the disease. Thus 223 cases were positive. The results in 14 were negative, and the clinical histories in these cases showed that they suffered not from typhoid but from meningitis, malaria, pneumonia, constipation, etc. Of the 143 cases, six were doubt-

ful, three being examined during convalescence. In two the first examination was negative, but the clinical history pointing to typhoid. There was no second examination. One case gave grave typhoid aspect, but the reaction was negative both by the Widal as well as by the dried blood methods."

The Medical Standard, of Chicago, has this abstract:

Drs. Julius Ullman and Albert E. Woehnert, of Buffalo, N. Y., have made a confirmatory report on Widal's serum diagnosis of typhoid fever, based upon twenty-eight observations (*N. Y. Med. Jour.*) They employed the method of examination described by Dr. Wyatt Johnston, of Montreal, which is as follows:

"Use a dry lens about one-fourth focal distance. The dried blood is partly dissolved in germ free water, and a drop of the solution obtained is placed on the cover glass, which has been passed through a flame and mixed with a typhoid bouillon. This is placed over a hollow cell, and sealed by vaseline. The examination is controlled by comparing it with a blood-drop from an undoubtedly typhoid case and also with normal blood."

From their experience with this test the authors draw the following conclusions:

1. Widal's typhoid reaction is the most efficient of all tests for the positive diagnosis of typhoid fever.

2. The test is particularly adapted to hospital and municipal laboratories.

3. It is especially indicated in cases where the case in hand is suspected to be typhoid, but where other diseases with similar symptoms can not satisfactorily be excluded.

4. The intensity of the reaction offers a critical sign as to the severity and prognosis of the case.

5. The reaction is obtained from the fourth to the sixth day of the disease and continues some time after convalescence.

6. It is desirable to make a second or third examination in doubtful cases.

7. The dried serum collected on a card is readily utilized, even after a great lapse of time after the withdrawal of the blood, and is practicable because of the ease with which it can be transmitted by mail, even from great distances.

8. It is most satisfactory to use bouillon cultures of the

typhoid bacilli, because in a liquid medium, bacilli are not fixed and have opportunities for free mobility.

9. It is important to work with bouillon cultures not older than twenty-four hours. Where they are older the mobility of the bacilli is checked, unfitting the cultures for accurate work.

THE PRESENT STATUS OF THE SERUM TREATMENT OF DIPHTHERA. —As there has been over one million injections of antitoxin made up to this time, some proper conclusions as to its use and results are being arrived at. It has reached such a stage that an assertion made many months ago "that it is criminal to treat a case of diphtheria in its early stage without antitoxin" can be justly repeated with increased vehemence. * *

We can not yet claim it as a specific, yet Jacobi, who at first opposed the use of the serum, says in a recent article, "It will be entitled to be claimed as a specific, though it has not the power to cure every case of diphtheria, any more than quinine cures every case of malaria, or mercury of syphilis." Many say, if injected the first day of the disease, no case need die.

My experience with it has been exceedingly favorable. Of the many cases in which I have used it, there have been exceedingly few deaths, and my dread of diphtheria has decreased to such proportion as to render me very much less worried when called to see a case. It does not do away with other treatment, as many suppose, but does away with so much of it as to render it almost *nil*, not only as to quantity but as to perseverance and severity. A case seen in the last few days will illustrate what I mean. All cases do not end so, but it is more the rule than the exception.

J., a girl 5 years old, had had diphtheria, so far as known, two days; she was quite hoarse; pulse weak and irregular; a typical membrane was on the palate and pharynx; it was a typical case of diphtheria of the pharynx, soft palate, and larynx; a case in which, without antitoxin, I would have immediately advised intubation. I gave her 4 c. c., or 1,000 units of serum, injecting it into the outer part of the left thigh. I first washed the part well with alcohol, and used ethyl chloride as a local anesthetic; with this the injection gave little or no pain. A five-per-cent. solution of carbolic acid can be used instead of the

alcohol; it is not only a good cleanser, but also a local anesthetic. My needles I wash in the same solution. After the injection no pressure was made to distribute the serum. The part was again bathed with alcohol, and a small piece of cotton with alcohol on it placed over the wound, and held in place by an adhesive strip. No reaction whatever followed. All membrane in sight was gone the next day; pulse was good, temperature about normal; patient with a good appetite, and voice nearly clear in three days. As I stated before, this is not an exceptional case. The little patient made a good recovery. * * *

The date of the administration of the antitoxin is of the greatest importance; this is really the obstacle that is the most difficult to overcome in this treatment of diphtheria. All who use it know the several reasons for it, which are not necessary to give here; the cost is but little, and any doctor with a clean hypodermic syringe should be able to use the remedy. So the objections which have heretofore been advanced against the use of diphtheria antitoxin are being, as I stated before, rapidly dissipated. * * * * * * * * *

In all the cases in which I have used antitoxin I have never seen an eruption or a joint involvement; have never had but one to die of kidney complication; have seen but little paralysis; have seen the membrane disappear in half the usual time; have usually seen the temperature fall promptly, and the child's appetite improve very much. The cheerfulness of the patient improves wonderfully, all this with antitoxin alone, or with little or no other treatment, either local or general. This is not in all cases. If the child receives the injection late, cell tissue destroyed can not be restored. Bearing on this point is a report on a recent epidemic in Chicago. Of sixty-one children injected the first day of the disease, all got well; of one hundred and eighty-seven the second day, three died; of three hundred and seventy-two the third day, ten died; of one hundred and nine the fourth day, seventeen died. From this the importance of an early injection can be readily seen. A fair criticism of any remedy can result in nothing but good. Professor Soltman gives us the following quotation from a German poet:

"The best critics in the world are they
Who, along with that which they gainsay,
Suggest another and a better way."

These three lines answer, I think, all criticisms that have been made on the serum treatment of diphtheria. It is not a cure-all. The dose and some few other points of importance, in my opinion, have not yet been definitely settled. Even accepting the statistics given as "double edged," yet, as Soltman says, "Suggest another, and a better way." I believe the serum treatment of diphtheria is the best that has yet been offered; that in the full sense of the word it is not a specific; yet, if used in the first or second days of the disease, in the proper dose (which has not yet been definitely settled), it is as much a specific as quinine in malaria, or potassium iodide and mercury in syphilis. —*Extracts from a paper read before the Louisville Medico-Chirurgical Society, Jan. 8th, ult., by Wm. Cheatham, M.D., Prof. of Diseases of Eye, Ear and Throat, Louisville Medical College, in Amer. Practitioner and News.*

OIL OF TURPENTINE IN THE TREATMENT OF ACNE ROSACEA. —The *Journal des practiciens* for March 6th cites Dr. O. Betz, of Heilbronn, as recommending inunction with oil of turpentine for the cure of acne rosacea. He discovered its virtue by chance. A woman had bronchitis, and he prescribed for her frictions of the chest with the oil. She had also acne rosacea, which he had treated previously without success. A few months later, to his great surprise, he found that she no longer presented any trace of the acne lesions, and learned that this result had followed upon her rubbing the turpentine oil on the rosaceous patches. Thereupon he recommended the treatment to a man who for seven years had had acne rosacea which had resisted all treatment, and under the turpentine inunctions the lesions disappeared in less than a month.—*N. Y. Medical Journal.*

ICHTHYOL IN WHOOPING-COUGH.—L. Maestro (*Die Therapie der Gegenwart*, 1899, *xxxvii*, 607) reports a number of cases treated in the clinic of Prof. Cervesato in Padua. The remedy was given in pill form in doses of 0.05 to 0.20 grm. daily, according to the age of the child, and rapidly increased to 0.60 to 1.0 grm. in twenty-four hours. Occasionally inhalations of a three per cent. solution of ichthyol in glycerine were adminis-

tered at the same time. In every case the relief was immediate, and a cure was obtained in a relatively short period. The remedy was well borne by the children, and never occasioned the slightest disturbance. Not only were no bad effects on the kidneys noted, but on the contrary the influence on the general condition was excellent. According to him ichthyol is to be considered one of the most effective remedies in whooping-cough, as it rapidly diminishes the number and intensity of the paroxysms, and shortens the duration of the disease.—*Pediatrics.*

Editorial.

CENTENNIAL CALENDAR FOR MAY.

In addition to the many general attractions offered to visitors to the Tennessee Centennial and International Exposition the following fixed dates for special features for the month have been arranged:

May 1. Opening of the Exposition, in which State and Municipal Officers will take part, preceded by street parade of Ancient Essenic Order.
3. Supreme Senate Knights Ancient Essenic Order.
5. Mexico Day.
7-8. Freight Claim Association.
8. Public School Art Day.
11. National Association of Railroad Air Brakemen.
12. Improved Order of Red Men; Wolverine Press Association of Michigan.
13. Wilmington, North Carolina Day.
11-12-13. Tennessee State Medical Society.
15. Knights of Pythias.
17. National Good Citizens' Convention.
17-18. Woman's Musical Congress.
18. Hocking and Ohio Valley Press Associations of Ohio.
18-19. Tennessee State Banker's Association.
20. Visit of President McKinley and Cabinet; United Order Golden Cross.
24. Kentucky Day.
26. Greek Letter Societies.
27. Vanderbilt Day, in honor of Commodore Vanderbilt.
28. State Press Association of Georgia.
29. Wisconsin Day.

Together with the many and magnificent displays in the various grand buildings throughout the spacious and beautiful park, the list of attractions in "Vanity Fair," already placed, exceeds any similar list ever presented to the public, the great World's Fair being no exception.

SHADOWS OF THE PAST.

In preparing a special number to commemorate and take part in our grand International and Centennial Exposition, it was thought that nothing would be more appropriate than the series of illustrations in the first part of this number. These grand and illustrious representatives of the medical profession, with one exception, have all passed away. These, the pioneer teachers of medicine in the Volunteer State, builded both wisely and well, and the footprints made by them along the paths of science are deeply graven in the history of the State.

In the early part of the '40s the subject of a medical school became a matter of consideration in this city, whose population at that time and whose limits were less than one-tenth of its present attainment. Notwithstanding, that in that day a journey to the medical schools of the East was a matter of not hours, nor days, but weeks, and, although Nashville, with her many other advantages, was recognized all over our Southern country as a seat of learning, and a centre of education, it was not until 1850 and 1851 that anything definite was accomplished in the way of developing here a medical school. The first active and material step that resulted in anything satisfactory is thus given in an address delivered in this city by the late W. K. Bowling, M.D., in 1868, from which we collate some material facts.

"In September, 1850," said Dr. Bowling, "the name of J. Berrien Lindsley was left on my office slate. I had never seen him. The next day he called while I was in. We had a long conversation upon medical men and medical schools. He was born and reared in a university, with the lofty ideas of his distinguished father. We were both full of medical schools, and rather anxious that medical schools should be partially full of us. By him I was introduced to kindred spirits. We had frequent meetings at my office. All were enthusiastic. The club consisted of Drs. J. Berrien Lindsley, A. H. Buchanan, Robt. M. Porter, Charles K. Winston, John M. Watson, and myself."

Yes, in the meeting of these two men, and to the indefatigable energy and earnest determination of Dr. Lindsey, is the city of Nashville and the State of Tennessee indebted for its first medical school. This much has been on more than one occasion accorded the only survivor by his able and illustrious associate, and he was in fact and indeed the founder of the school, to whom it must be intensely gratifying at this day to look back upon the past and see what has been accomplished thereby.

Dr. Bowling, in his address, went more fully into the development of the enterprise than we can give space to on this occasion. Suffice it to be briefly summarized, that these six gentlemen quietly but persistently went on with their work, and had everything arranged for the opening of the Medical Department of the University of Nashville in the autumn of 1851. The faculty, as originally constituted, was slightly changed before the opening day by the transfer of Dr. Buchanan from the chair of Surgery to that of Surgical Anatomy, Pathology and Physiology. It having been learned that Prof. Paul F. Eve, for seventeen years Professor of

Surgery in the Medical College, of Georgia and at that time holding the chair of Principles and Practice of Surgery in the Louisville Medical College, was willing to join them, Prof. Buchanan, who was at that time prominent as a surgeon in this locality, cheerfully relinquished this chair to one who had already become renowned as a teacher. Dr. W. T. Briggs was induced by Dr. Bowling to come to Nashville and accept the position of Demonstrator of Anatomy.

With the four fundamental corners of the edifice, comprising anatomy, physiology, chemistry and materia medica, sustained by such men as Porter, Buchanan, Lindsley and Winston, with the two practical members of the arch, consisting of surgery and obstetrics, represented by the already illustrious Eve and the sedate Watson, and practice of medicine, the key-stone of the arch, indispensable to surgery and obstetrics, binding them all together in one compact, comprehensive mass by the able and and versatile Bowling, was it but natural that medical teaching here should at once occupy a high plane indeed, and soon rival the older and more pretentious schools of the East? Not only in medical teaching, but in all that pertained to medical progress in their day, did these men ably sustain its steady and regular advance. Three of these illustrious pioneer medical teachers of Tennessee were subsequently chosen by the representative men of their day to the highest honors in the profession, that of President of the American Medical Association—Eve in 1858, Bowling in 1875, and Briggs in 1891. The young men sent out each year from their tutelage rapidly took position as the foremost men of the South and West, the honored and trusted medical advisers of the best people of their section; and while many of them have passed away and have joined their great teachers on the other shore, the survivors can be found here and there, in various locations, yet as ever occupying positions of prominence, honor and renown wherever found.

My recollection of these grand men are exceedingly pleasant. Reared in the city of Nashville, I was personally conversant with them all before entering the portals of medicine under their auspicious and kindly care. All stood high in the community before they assumed the important and arduous duties of teachers of medicine.

Dr. Bowling had recently moved to this city prior to the organization of the school with which he was so long identified. Suave in manner, courtly and polished in his demeanor, of portly physique, with a gift of eloquent speech, a rare fund of anecdote, always *apropos* and most humorously rendered, he made a marked impression on all with whom he came in contact. As a lecturer he always entertained the large classes assembled, and in indelible lines impressed on each individual the important truths of medicine.

Quiet, modest and unassuming was his energetic co-adjutor, Dr. Lindsley, yet the earnestness with which he entered into his subject, the interest always manifested, whether in didactic teaching or laboratory work and chemical experiment, indefatigable in his efforts to instruct; the *bete noire* of most medical students, the dry details of technical chemistry

were made both entertaining and interesting as well as instructive; his teachings throughout being eminently practical, and limited so far as compatible with a correct understanding of his department of science, to that which it was important for a practitioner to know.

Physiology and pathology became entrancing to a degree under the concise yet thorough teachings of Professor Buchanan. With an eloquence at times that enthralled as well as instructed, the physiological facts and pathological data of that day were most correctly stated and thoroughly elucidated. Of medium height and somewhat spare frame, his deep but brilliant gray eyes would light up with an intelligence and fervor that never failed to absorb the entire interest of his classes.

"Of noble stature and commanding presence, with fine head and refined features illumined with the light of a genius, a distinguished type in any group of the most intellectual of his fellows," was Professor Eve. "Large of frame and vigorous of muscle, he was the embodiment of tireless energy and persistence," as he most thoroughly endeavored to impress the important truths of his science and art. Having won the "Golden Cross of Honor" on the battle-field of Poland, having served as a medical volunteer in the French revolution of 1830, having held the chair of surgery in the medical college of his native State for seventeen years, the recognized lithotomist of his day, an honest and fearless surgeon, no one was ever more competent to instruct, and no one was more devoted to his great science and art. He was held in universal esteem, reverence and veneration by all.

Sedate and dignified in his deportment, Professor Watson was of somewhat sturdy build, clean shaven, each particular hair on his massive head in place; although a preacher as well as a doctor, his eloquence was more in the plain and instructive details rather than flights of oratory. His voice, though somewhat monotonous, was full and soronous in tone; and his gestures were limited to a slight extension of the right arm, with the fore-finger extended, but slightly curved, the others closed on the palm, as he forcibly would emphasize the salient points of his lecture.

Professor Winston was of limited physical development, and hardly up to medium stature, but with energetic eloquence, and with well modulated voice reaching to the farthest recesses of the lecture-room. As gentle as a woman, his great heart filled with almost parental kindness to each individual member of the class, becoming enthused with his subject, the dry details of dosage and therapeutic properties of the various drugs and their combinations, became as attractive as a poem and as enthralling as a drama. Subsequent to the decease of his efficent colleague, Professor Watson, he ably filled the chair of obstetrics, to which he had been transferred.

Robert M. Porter was a graduate in all of the three learned professions; in law from the University at Cambridge, Mass.; in theology from Princeton, N. J., and in medicine from the University of Pennsylvania, and was an ordained minister, as well as a practitioner of medicine. Notwithstanding these special advantages and his own native ability he was most unpretentious. Yielding up his brilliant life's career in his thirty-

ninth year, like his great predecessor, Vesalius, a victim to his intense ardor and great interest in the study of anatomy. Universally liked by all who knew him, his prospects were brilliant indeed.

Wm. T. Briggs, Demonstrator of Anatomy from the origin of the school until he succeeded Professor Buchanan in 1866, was the youngest one of these original pioneers in medical teaching in this State. He had an indomitable will and the most persistent energy. Having had the advantages of special tutelage under Dr. Benjamin Dudley when in the zenith of his fame, his earnest work for so many years as a thorough and concise teacher of practical anatomy well fitted him for his subsequent attainments in surgery. During his career as demonstrator he not only labored with the classes in practical work each night, but regularly delivered three didactic lectures on anatomy each week, ever maintainin g the respect and interest of the large classes in attendance.

These are but brief reminiscences, of a personal nature, of these men, under whom were 3,199 matriculates and 909 graduates in their first ten years of service as medical teachers; the succeeding decade increased these numbers to 4,401 and 1,317 respectively; their teachings being as thorough, as practical and efficient as any other institution in the land, as evidenced by the material success of their pupils wherever found. Medicine since their *debut* as medical instructors is a science that has almost been entirely rewritten. When they commenced, anæsthesia had been in use but seven years, yet they were as proficient and successful in its most beneficent administration as any. The third successful amputation at the hip-joint in the world was performed in this city by Prof. A. H. Buchanan in 1859. Ovariotomy, although introduced by McDowell nearly forty years prior to the first session taught by them, although each member of this faculty fully recognized its beneficent results to woman-kind, was, to some extent, as yet under the ban; the germ theory of disease was in the womb of the future; asepsis and antisepsis were unknown terms; although the method of treating the umbilical cord advocated by Professor Watson as a preventive of trismus nascentium in his treatise on this disease, published as a monograph during his professorship, is in thorough accord with the best aseptic methods of the day, and was most eminently successful. Eve's success as a lithotomist was the envy of the surgeons of civilized nations, and he persistently pursued the honorable course throughout his long and eventful life of publishing his *unsuccessful* as well as his successful cases. Professor Bowling's eminence as a versatile writer was only equalled by his success as a medical teacher, and the journalistic venture under his care and that of Professor Eve, now venerable with nearly a half century's existence behind it, was quoted largely on this continent and in Europe.

While there is much that it would have pleased the writer to have jotted down in these "Shadows of the Past," and the regret is that his ability is far in abeyance to, and incompatible with, the grandeur of the theme; with sincere veneration, esteem and respect, kindly hoping that he may have brought pleasing reminiscenses to some,

an honest and earnest emulation to others, we will conclude with the saying: "*And these were giants in those days.*"

TRUE AND SINCERE FRIENDS OF THE MEDICAL PROFESSION.

The treatment of professional men in accordance with professional methods has enabled Parke, Davis & Co., to rear a stately structure in a single generation, with high principles, progressive and generous ideas, and unflagging enterprise. It is not difficult to understand the feeling of almost personal attachment which is cherished by thousands of medical practitioners throughout the United States toward the great house of Parke, Davis & Co.

Though their fame is indeed as broad as civilization, and though their admirers abound in all parts of the world, it is especially in America that they stand preeminent among manufacturing pharmacists. Here they founded some thirty years ago an insignificent laboratory in a provincial city—here they struggled and labored and triumphed, finally rearing a magnificent institution—here they have provided during a generation of human life the means of sustaining the eternal conflict with disease—and here they possess the confidence of countless practitioners who have tested their products in every concievable exigency of medical practice, and whom they have never once disappointed, forsaken or betrayed.

From the outset of their career Parke. Davis & Co. have religiously respected the antagonistic feelings of medical practitioners toward secrecy, monopoly, or charlantism in the exploiting of pharmaceutical preparations. This house has no trade marks, no copyrights, no patents on a single product under its control. It gives wide publicity to every formula. It has consistently announced the true botanical origin of all the new drugs that it has introduced—and their name is legion. Parke, Davis & Co. enjoy absolutely no form of proprietary protection; hence their ideas, their specialities, their processes are at once appropriated by others; and their sole bulwark against imposition is the firm-name and its commanding authority in the eyes of the pharmaceutical world.

It is commonly and correctly supposed that a manufacturer fulfills his whole duty in providing the medical profession with trustworthy, reliable forms of classical and current drugs. But Parke, Davis & Co. have not been content with this narrow definition of their function as purveyors to the medical profession. They have fitted out expedition after expedition to all parts of the world in search of new medicinal agents, and have ransacked the continents in their efforts to increase the resources of medical practitioners. Among the drugs which they were the first to introduce, those in great demand at the present time, are Cascara Sagrada, Grindelia Robusta, Jaborandi, Coca, Damiana, Quebracho, Berberis Aquifolium, Kola, Pichi, Manaca, Corn Silk, Cascara Amarga, Yerba Santa, Cereus Grandiflora, Coto, Euphorbia Pilulifera, Jamaica

Dogwood, Lippia Mexicana, Rhus Aromatica, Saw Palmetto, and many others.

The first to grasp the importance of standardizing fluid, solid and powered extracts were Parke, Davis & Co., and their services in urging upon the medical profession the necessity of overcoming the natural fluctuations in medicinal potency of leaf and root and bark can not be too gratefully realized. They were the first to overcome these variations and to offer products of uniform, precise and unswerving activity. Their Normal Liquids were the first line of assayed, standardized galenicals ever placed within the physician's reach; and in the great movement of standardization, now so general and popular, Parke, Davis & Co. were the pioneers.

The first Physiological Laboratory ever erected by a manufacturer, with a view to investigating the action of drugs on animals, the properties of new remedies, and the quality of pharmaceutical preparations, was that equipped by Parke, Davis & Co. about a year ago, with the costly apparatus and appliances required for research work. Two thoroughly scientific men—Dr. Charles T. McClintock and Dr. E. M. Houghton, both formerly connected with the University of Michigan, have been placed in charge as Directors. They will superintend the manufacture of bacteriological agents, test pharmacological products, and investigate the action of new remedies.

Now comes the announcement that Parke, Davis & Co., instinct with the old spirit of progress, have engaged the services of Dr. Hobart A. Hare, Professor of Materia Medica and Therapeutics in the Jefferson Medical College, Philadelphia, as consulting therapeutist, and that henceforth they will have the benefit of his experience and counsel in all questions pertaining to the clinical action of drugs and their most desirable preparations. It is our conviction that Dr. Hare will prove an invaluable acquisition to their medical staff, for all questions relating to the practical value of new and old remedies, and to the relative merit of various preparations, will be referred to him for an opinion.

With the wealth of resources now at the command of this house for producing and rigorously testing every pharmaceutical product in their catalogue—with an ardent desire to utilize all the agencies which may aid them in realizing their ideals of activity, uniformity and precision—it is idle to suppose that they will falter in their onward march, or relax their hold on their proud distinction as "the foremost pharmaceutical house in all the world."

For more than a quarter of a century we have been using the preparations of this excellent establishment, and whether in the form of crude drug, fluid extract, normal liquid, pills, powders or tablets have invariably found them in every way reliable and of definite and exact strength.

Dr. Nicholas Senn has purchased the enormous library of the late Du-Bois Reymond, of Berlin, and has presented it to the Newberry Library, of Chicago.

THE TENNESSEE STATE MEDICAL SOCIETY.

As previously stated, the 64th annual session will be held in this city, commencing Tuesday, May 11th, inst. We submit the following from the recent circular issued by the Secretary, Dr. C. R. Atchison, of this city:

As our annual meeting this year is contemporaneous with the celebration of the Centennial of our State, we feel that, with the inducements offered by the Centennial, the reduced fare and opportunity of meeting so many professional brethren, to say nothing of the individual profit each member derives from association with his fellow-members, our session will be more largely attended than has ever occurred before in the history of our Society. We are already assured of a full attendance and hope that this meeting will be the Banner Session of the Society, and urge that all the members act in concert with us and try to arrange their matters so that they can make their visit to the Great Exposition during the time of the meeting of the Society.

The Committee of Arrangement have selected the Senate Chamber of the Capitol as the place of meeting, deeming it peculiarly fit that the greatest meeting of the State Society should be held in the state building. The meeting will be called to order promptly at 9:30 A.M. on May 11th, and it is urgently requested that all be present as nearly as possible at the hour of opening.

Round trip tickets, good for 7 to 14 days, can be secured at one fare or less. Be sure to ask for Centennial rates.

We can assure you of ample hotel accommodations. A hearty welcome is extended to you by the local profession.

The programme is purposely not as yet completed, and all members who desire to present papers must give in their names and titles on or before May 5th. The programme, so far as completed, is as follows:

A Paper, by Dr. J. H. Atlee, Chattanooga.

A Plea for the Better Care of Teeth and Mouth Cleanliness, by Dr. F. B. Reagor, Flat Rock.

A Paper, by Dr. W. C. Bilbro, Murfreesboro.

Vesical Calculi, by Dr. S. B. Fowler, Gainesboro.

Typhoid Fever, by Dr. H. K. Edgerton, Lebanon.

Obstetric Antisepsis, by A. B. Ramsey, McMinnville.

A Paper, by Dr. J. S. Cain, Nashville.

Pregnant, Puerperal and Parturient Women—*The ordinary duties and responsibilities of the doctor in relation to them*, by Dr. I. A. McSwain, Paris.

Puerperal Eclampsia, by Dr. F. S. McCready, Petersburg.

Radical Cure of Cancer of the Breast, by Dr. C. E. Ristine, Knoxville.

Cerebro-Spinal Meningitis, by Dr. M. B. Smiser, Culleoka.

Antitoxin Treatment Diphtheria, by Dr. R. E. Fort, Nashville.

Antitoxin Treatment Diphtheria, by Dr. W. H. Willet, Adams Station.

Headaches, by Dr. Hazle Padgett, Columbia.

Acute Intestinal Infection in the Young, by Dr. J. B. Murfree, Murfreesboro.

Shock, by Dr. S. R. Miller, Knoxville.

Fact and Theory in Medicine, by Dr. G. C. Savage, Nashville.
A Paper, by Dr. D. H. Williams, Knoxville.
The Abuse of Antipyretics, by Dr. G. M. Peavler, Bristol.
Summer Diarrhœa in Children, by Dr. J. T. Graham, Brownsville.
Treatment ofPurulent Ophthalmia, by Dr. F. T. Smith, Chattanooga.
Drifting Away, by Dr. T. A. Atchison, Nashville.

MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION, MAY 18, 19 and 20.—Present prospects are that the meeting of the Missouri State Association this year is going to prove very satisfactory. The committees have all gotten to work early which is a good indication. The committee on scientific communications is already in receipt of titles in numbers and character sufficient to insure the programme scientifically attractive. All the first, the second and the third day until noon will be devoted to the scientific programme. On the evening of the first day the association will as a body attend a session of the Illinois Society in East St. Louis. On the evening of the second day the Illinois Society will attend as a body a session of the Missouri Association, after which there will be a banquet and reception. On the third day both bodies will adjourn and join in a steamboat excursion on the river.

THE FIFTIETH ANNIVERSARY OF THE AMERICAN MEDICAL ASSOCIATION.—The Forty-eighth (there was no meetings held by the Association during the years 1861 and 1862.) Annual Session will be held in Philadelphia, Pa., on Tuesday, Wednesday, Thursday and Friday, June 1, 2, 3 and 4, commencing on Tuesday, at 10 A.M.

The Presidential Address, Nicholas Senn, Chicago; Address in Surgery, Wm. W. Keen, Philadelphia; Address in Medicine, Austin Flint, New York; Address in State Medicine, John B. Hamilton, Chicago. Committee on Arrangements.—H. A. Hare, 222 S. 15th Street, Philadelphia. Chairman; Dr. W. B. Atkinson, Secretary, 1400 Pine St., Philadelphia.

The semi-centennial meeting of the American Medical Association bids fair to surpass in the character of the entertainmentt the scientific papers, and the number in attendance, any meeting which has heretofore been held. The committee in charge have been able to obtain large and roomy places of meeting for the general meetings and the section meetings, all within a single block, and within very short walking distance or immediately adjacent to the largest and most comfortable of the Philadelphia hotels.

For the week preceding and following the meeting the Committee of Arrangements have also arranged for clinical courses, which will be open without charge to all physicians who may visit the city at that time. These courses cover every branch in medicine and its specialties, and will

afford visitors the opportunity of seeing the active clinical work of all the great teachers of Philadelphia, which is now, as it has been for so many years in the past, in every respect, the medical centre of the United States. Railroad rates at one and one-third, certificate plan.

MIDDLE TENNESSEE MEDICAL SOCIETY.—The forthcoming meeting of the Middle Tennessee Medical Society that meets in McMinnville on June 17th and 18th promises to be a magnificent one. Dr. A. Jones, of Cornersville, is President, and Dr. Hazle Padgett, of Columbia, is Secretary and Treasurer.

BRAUNSCHWEIGER MUMME AS A TONIC.—There comes a time in the experience of almost every one when there seems to be a "letting down" of the vital forces—a weakening of the digestion and the appearance of nervous trouble more or less complicated. Professionally the physician recognizes, and almost instinctively the sufferer knows that medicine is not so much the requirement as a tonic—a food and medicine together. It is at such a time as this that a pure malt extract, like Braunschweiger Mumme, meets its mission and accomplishes grand results. Braunschweiger Mumme contains a greater amount of nutritious substance than any other malt extract on the market, and proves its inherent efficiacy by the marvelous results it is accomplishing at the hands of the profession and by those who are steadily using it as a tonic—after having had it prescribed for them.

Full size bottle to address of any physician or medical institution, free of charge, except expressage, by writing the Long Island Bottling Co., Brooklyn, N. Y.

ANTIKAMNIA: In *The Reference Book of Practical Therapeutics* by various authors, edited by Frank P. Foster, M.D., Editor of the *N. Y. Medical Journal* and *Foster's Encyclopædic Medical Dictionary*, recently issued from the press of Messrs. D. Appleton & Co., one of the best and most practical books of the day, we find on pages 111 and 112, Vol. I, the following statement:

"*Antikamnia* is an American proprietary preparation that has come into extensive use as an analgetic and antipyretic. It is a white, crystalline, odorless powder, having a slightly aromatic taste, soluble in hot water, almost insoluble in cold water, but more fully soluble in alcohol. It is probably one of the coal-tar products, or a mixture of one or more of those products with some other drug or drugs. * * * * * Whatever its composition may be, Antikamnia seems to have a sufficiently definite therapeutic action to give it individuality as a drug."

"As an *antipyretic* its acts rather more slowly than antipyrine or ace-

tanilide, but efficiently, and it has the advantage of being free, or almost free from any depressing effect on the heart. Some observers even think that it exerts a sustaining action on the circulation. As an *analgetic* it is characterized by promptness of action and freedom from the disagreeable effects of the narcotics. It has been much used, and with very favorable results in *neuralgia*, *influenza*, and various nervous disorders characterized by *melancholia*. The dose of Antikamnia is from three to ten grains, and it is most conveniently given in the form of tablets."

PHILLIPS' MILK OF MAGNESIA.—We desire to caution the profession against the cheap imitations of Phillips' Milk of Magnesia. This preparation was formulated and introduced many years since by the Chas. H. Phillips Chemical Company, 77 Pine street, New York; and because of its reputation for efficiency and thorough reliability, other manufacturers, calling themselves reputable, are soliciting retailers to purchase cheap imitations for substitution on prescription, which is criminal. These substitutes are wholly unreliable, sell because cheap, and, when put out in ignorance of physician and patient, create unjust prejudice against the genuine. The sale of these piratical goods can be checked if the physician will distinctly specify "Phillips'" when prescribing, and see that the patient gets it. A reliable antacid in the gastro-intestinal irritations of infant and adult. Superior to bicarb. of soda, lime water, chalk. etc., in local or systemic acidity. Prescribe Phillips'.

IMPERIAL GRANUM is not a stimulant nor a chemical preparation, but a *pure, unsweetened food*, carefully prepared from the best wheat. Physicians can depend confidently upon it in fevers, and all gastric and enteric diseases. It is recommended by some of the best authorities and clinicians as a *safe* and *perfectly* reliable food for nursing mothers and infants, and it will prove highly beneficial for all invalids, convalescents, dyspeptic, delicate, infirm and aged persons. It is easily digested, nourishing and strengthening, readily assimilable, and does not interfere with the action of medicines. It is often the only food that the stomach will retain. It is most highly commended by many of our best medical periodicals. If you are not conversant with its excellent properties, write to The Imperial Granum Co., P. O. Drawer 40, New Haven, Conn., and you will receive a sample free. After having tried it and ascertained, as you will, its intrinsic value, any druggist can procure it for you.

DR. J. R. ANDRE, of Baltimore, Md., writes February 25, 1897: "I am using neurosine in my practice and find it the most efficient remedy in nervous diseases, and the very best hypnotic, without the detrimental after-effects from the use of opium, morphine or chloral."

AN ACROSTIC—LA GRIPPE.

A–ll the nerves gone on a bender,
N–ot an organ is exempt,
T–eeth and scalp and muscles tender,
I–cy chills, the bones pre-empt;
K–ale idoscopic are the symptoms legion,
A–s they overrun the system,
M–aking life a weary region,
N–o one able to resist them.
I–s there nothing that will cure?
A–ntikamnia will, I'm sure!

FREDERICK B. SUTTON, M.D.,
Atlanta, Ga.

I HAVE prescribed bromidia with pronounced success in several cases of nervousness and restlessness and in one case of acute cystitis. I have combined papine with bromidia, which gave instant relief. Parenthetically, I may say I have personally used a teaspoonful of bromidia, after having successively lost several nights rest, and procured a refreshing night's rest with no bad after-effects. CHAS. E. QUETIL, M.D.
Philadelphia, Pa.

CHIONIA, when given continuously for sometime in doses of a teaspoonful four times a day, invariably gets a response from the liver to its gentle, stimulating influence upon this important emunctory. It thus overcomes chronic constipation, torpidity or defective action of the liver, and is a most excellent remedy in such conditions. If you are not familiar with its action, write for a sample to the Peacock Chemical Co., 112 and 114 North Second Street, St. Louis, Mo.

LISTERINE, a product of ozoniferous ethers, harmless to human life, but pregnant with destruction and disaster to all micro-organic development, is an agent rationally indicated as a gargle in diphtheria, scarlet fever, and other zymotic diseases, both for the patient and attendant; in the latter as a prophylactic, and in the former to weaken the virus generated in the throat, with a view to diminish the danger both of auto-infection and of transmission to others.

In dangerous diseases it is doubly desirable to be assured that the patient is using Genuine Listerine. The general practitioner, the surgeon, the gynecologist and the dentist all use it largely and highly appreciate its valuable properties.

WANTED: To correspond with competent physicians who desire a good location for the practice of medicine. Address with stamp, F. M. SHIPPEY, Waterloo, Iowa.

THE GREEN FLUID EXTRACTS of Wm. S. Merrell Chemical Co., are characterized by uniform strength, convenience of administration, non-liability to detirioration by age and positive therapeutic efficacy. Special attention is called to their *Alkaline Elixir*, which will prove of unquestioned benefit in handling the bowel diseases incident to the approaching summer season. Read its composition given on our title-page and you will readily perceive the excellence of its composition. Give it a trial and you will be satisfied with its efficacy.

TONGALINE.—For fifteen years this preparation has been before the medical profession, and each additional year has but added to the esteem and appreciation of its most excellent qualities. In Rheumatism, Gout, Neuralgia, Sciatica and Nervous Headache it has been proved to be of most excellent service.

BOVININE has demonstrated its value to many reliable observers in advanced Tuberculosis, Typhoid Fever, Pernicious Anæmia, Cholera-infantum, Inanition, Hæmorrhagic Collapse, Ulcers of all kinds and of long standing, Abscesses, Fistulas, Grangrene, Gonorrhœa, Blood-poisoning, Crushed or Diseased Bones, Extensive Burns, Lacerated Wounds, and in Skin Transplantation.

It is not intended to be and can not be made, an article of self-prescription, nor is it a stimulant; but a remedy for building up the blood, impoverished from whatever cause. It will command the approval of all who will give it a practical trial.

PEACOCK'S BROMIDES, whenever or wherever prescribed, is always uniform, pointed and reliable. It does not disturb the stomach, and is a most excellent hypnotic and sedative. It has for a long time been in frequent use, and commands continued approval.

THE PROGRESS OF MEDICINE.—

Hepatic doctors now are seen no more,
The hunt for bile has long been given o'er;
Whoever would a reputation make
Deserts the bile—the bug to overtake.

—*Practical Medicine.*

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N.Y., sole agents.

Reviews and Book Notices.

Reference Book of Practical Therapeutics, by various authors, edited by Frank P. Foster, M.D., Editor of the *New York Medical Journal*, and of *Foster's Encyclopædic Medical Dictionary*. In two volumes, Vol. 1, 8 vo., cloth, pp. 652. D. Appleton & Co., Publishers, New York. 1896.

The leading idea in the preparation of this work, to make it preëminently serviceable to the practicing physician, has been thoroughly and effectually carried out. Its subject matter embraces just such positive statements regarding remedial agents as rest upon what seems to be a substantial basis. It is not intended to take the place of standard works on materia medica, therapeutics and pharmacy, but as its title sets forth, a Reference Book, it is unquestionably a most gratifying success. In it the practitioner will find, readily accessible, just such information as he most frequently stands in need of, and for which he often has but little time to go over the vast field covered by the text-books and standard authorities.

Dr. Foster has shown his capabilities as a compiler in his magnificent dictionary, and has been aided in this work by some of the most able and practical men of the day. We have not space to give the entire list, but when we mention such names among its corps of compilers as Drs. Jno. A. Wyeth, Joseph A. Andrews, Arpad G. Gerster, Chas. Rice, of New York; George Dock, of Ann Arbor; J. T. Eskridge, of Denver; S. O. L. Potter, of San Francisco; E. R. Palmer, of Louisville; G. Gordon Campbell, of Montreal; Lucien Howe, of Buffalo; Chas. Jewett, of Brooklyn, and Jas. T. Whitaker, of Cincinnati, it is readily to be assured that we have in this volume only work that is first class, reliable and practical.

The consideration given to what are known as Proprietary Preparations is both rational and practical. "Many of these preparations," says the editor in his preface, "are used almost daily by every practicing physician, and there is hardly an issue

of any of the most reputable medical journals in which more or less space is not devoted to them. They cannot be ignored, and they ought not to be."

THE RETROSPECT OF PRACTICAL MEDICINE AND SURGERY, being a half-yearly journal containing a retrospective view of every discovery and practical improvement in the medical sciences. Edited by JAMES BRAITHWAITE, M.D., Lond., and E. F. TREVELYAN, M.D., Lond., B.Sc., M.R.C.P. Vol. CXIV., January 1897. Uniform American Edition, pp. 434; price, $1.50. G. P. PUTNAM'S SONS, Publishers, 27 W. Twenty-third St., New York.

This old stand-by, so long and so favorably known in both England and America, comes to us handsomely bound in cloth, as neatly printed as a work of art, and as ever, teeming with the discoveries, developments and advances of the past six months. Its first 128 pages are taken up with a "Synopsis," being an abstract of the most practical articles in the volume, with other short articles from medical journals, showing the most important indications of treatment published by different writers during the half-year.

The remaining portion of the volume is devoted to General Medicine and Therapeutics, Surgery, and Obstetrics and Gynecology. A full and complete index makes it readily available for reference.

LECTURES ON APPENDICITIS AND NOTES ON OTHER SUBJECTS, by ROBT. T. MORRIS, A.M., M.D., Fellow of the New York Academy of Medicine, Society of Alumni of Bellevue Hospital, Linnean Society of National History, Etc. Second edition, revised and enlarged, with illustrations by HENRY MACDONALD, M.D. G. P. PUTNAM'S SONS, Publishers, New York. 1897.

This pleasing little volume is the substance of the author's teaching on appendicitis at the New York Post-Graduate Medical School and Hospital, with notes that have appeared in medical literature from time to time. It is nothing if not original, and blazes one clear trail through the confusion on this subject in a thoroughly convincing way. The infectious etiology is a key to the pathology so well set forth by the well-executed drawings, and the treatment is the inevitable logical sequence of both.

The essential principle in operative treatment is thus summarized: "There is but one rule to be followed, and that is to

isolate an infected appendix as promptly as we would isolate a case of diphtheria, and for practically the same reasons, viz: the infected appendix will probably infect other structures, as the infected throat is likely to infect other throats. An infected appendix is isolated when it is out of the patient. All cases of appendicitis, that are otherwise in surgical limitations, are cases for prompt isolation of the appendix."

The effort of this author to take appendicitis out of the life-and-death class and put it in the limits of preventive medicine is only equalled by his contributions to the artistic technic of the operation itself, viz: the short, neat incision, the gauze in gutta-percha drainage wick, accurate co-aptation of abdominal planes, leaving an evanescent scar and insuring against hernia.

The notes on other subjects are pithy, and presented in a novel and striking manner. The typography and illustrations are artistic in the last degree.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX. A Work of Reference for Medical Practitioners. Fifteenth Year. E. B. TREAT, Publisher, 246 W. 23rd St., New York. Price, $2.75. 1897.

The fifteenth annual volume of this excellent series of publications shows a vast amount of work by its able and competent authors in bringing out the details of practical treatment, both medical and surgical. The field gone over has been large, the developments numerous, and the compilation of the advances along all lines is most excellent.

The following is quoted from the preface to the volume:

"The articles on general medicine and surgery are the conjoint work of European and American scientists, and we believe we are correct in stating that no work of such a completely cosmopolitan character has been previously produced. This is in every way advantageous to the practitioner, who is thus brought at first hand in contact with the practice and views of those who, although living in different countries, or continents, are actuated by the same aims as himself, and have the same difficulties to grapple with."

Although alphabeticially arranged, a very full and complete general index make it the more convenient for ready reference.

THE YEAR-BOOK OF TREATMENT FOR 1897. A Critical Review for Practitioners of Medicine and Surgery. Crown octavo, 488 pages. Cloth, $1.50. Philadelphia and New York. LEA BROTHERS & Co., 1897.

No practitioner of medicine, surgery or of any of the specialties can afford to neglect this work, the value of which far exceeds its very modest price. The Year-Book of Treatment furnishes a critical and authoritative epitome of a year's progress in all branches of practical medicine. That it has performed this service acceptably is evident from the consecutive publication of thirteen annual issues, and it may truly be said that the possessor of the series enjoys the advantage of a connected view of medical advance, always fresh and brought up to the latest date by each new volume. The whole domain of practical medicine is thus annually covered in a series of twenty-five chapters, each being assigned to a recognized authority, who gives in full detail all that is both true and new, with a critical statement of the comparative value and special applicability of the various drugs, prescriptions and methods of treatment. The work is systematically arranged and well indexed, and is an elbow-consultant always ready for instant use.

THE DISEASES OF THE STOMACH, by DR. C. A. EWALD, Extraordinary Professor of Medicine at the University of Berlin; Director of the Augusta Hospital, Etc., etc.; Translated from the Third German edition and edited, with numerous additions, by MORRIS MANGES, A.M., M.D., Assistant Visiting Physician to Mt. Sinai Hospital; Lecturer on General Medicine at the New York Polyclinic. Second revised edition; 8 vo., pp. 602. D. APPLETON & Co., Publishers, New York. 1897.

The second American edition of Dr. Ewald's most valuable work has so grown in volume that it was scarcely recognizable, notwithstanding we had so high an appreciation of it as to consider it a most valuable friend. Dr. Manges, in his preface to this edition, says:

"The great progress which has been made in our knowledge of the diseases of the stomach since the appearance of the first edition of this work, in 1892, has rendered a new edition necessary."

From the author's preface to the third German edition we quote:

"I would also direct attention to the progress made during the past few years in gastric surgery, which has now passed beyond the stage of a few isolated, daring operations. In the discussion of the various diseases I have considered the indications for operative interference, and have presented the pros and cons so far as would be necessary to enable a physician to determine whether in a concrete case the aid of the surgeon might be required.

"The present book, based upon lectures which were delivered before practitioners, and which were subsequently enlarged, has been designed for general practitioners and students; every part has been considered from this standpoint and represents an extensive practical experience."

While much of the science and art of medicine has been entirely re-written in the past few years, in the section of diseases of the stomach as elsewhere, there has been almost, if not complete, evolution and progress. Even the possessor of the first edition of this work will do well to procure its latest successor.

Dr. Manges, in his additions, has done much to fully bring this valuable treatise fully *au courant* with the progress of the day, he having incorporated much new and valuable matter in the text and foot notes, besides adding thirteen illustrative figures not in the German edition, his additions and illustrations being enclosed in brackets.

INEBRIETY, Its Source, Prevention and Cure. By CHAS. FOLLEN PALMER, 8 vo. cloth, pp. 110. Published by the FLEMING H. REVELL CO., New York, Chicago, and Toledo. 1897.

While this little monograph has much in it to commend it to the general reader, the professional man will not act amiss in devoting the brief period of time necessary for a careful perusal of its contents. It has some excellent points in it for consideration and is well and carefully written.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

HOME TREATMENT OF INSANITY.*

BY B. W. STONE, M.D., NASHVILLE, TENN.

Late Superintendent of the Western Kentucky Asylum for the Insane; Resident Superintendent of Morningside Retreat, Etc.

On account of a widely prevalent notion that insanity, like leprosy of ancient times, entails disgrace upon the individual it attacks and upon the family to which the individual belongs, there is almost invariably an effort made to prevent the world from ascertaining the fact that a case of insanity has developed. The subject is often kept secluded at home for months, seen only by the family and the faithful family physician. Until such a course compromises in any degree the chances for the patient's restoration of mind it is commendable. The responsibility of fixing the time when an insane person should leave home for the asylum is of the greatest character. The question should be

*Read before the Southern Kentucky Medical Association at Hopkinsville, April 13, 1897.

more carefully weighed than if life and death were in the balance, as hopeless insanity is surely a greater calamity than death.

In acute dementia or imbecility, where (as is the rule) the patient is uninfluenced by the environment, recovery may take place just as promptly at home as in an asylum, if a competent physician has charge and his directions in regard to management are faithfully carried out. In the emotional or primary stage of melancholia and mania many patients are not injuriously affected by contact with affairs and friends at home, especially if it is a well-regulated home and the members of the family display reasonable judgment in dealing with the patient. A small number seem to be even injured by removal from the sympathetic care of home friends. In a large per cent of the classes of incipient mania and melancholia efforts should be used to treat the patients outside of an asylum until the stage of systematized delusions is reached. It is in this stage when the disease may rapidly become irremediable, unless the patient be at once removed from home and receive energetic, timely treatment under the best moral environment. Previous to this time the melancholiac should be constantly observed to detect the first indication of development of a suicidal purpose, and the maniacal of the homicidal purpose. Kleptomania, pyromania and erotomania may early develop and make imperative the prompt removal of the patient. This removal from the surroundings in the midst of which insanity occurred often conduces more toward restoration than the best medical treatment.

The subject of general paresis can only be properly treated in an asylum. They invariably grow rapidly worse under business and social excitements, especially those of the conjugal relation. The paretic may even become dangerous under the irritation which he may be subjected to at home. The patients who give the public and the family the greatest anxiety of all are the monomaniacs or paranoiacs. These people seem to be entirely well on every subject except that of personal persecution by others. There are many paranoiacs at large in the country to-day who should be confined in asylums. They often escape commitment to the asylums by shrewd argument before juries, and some soon escape if committed and remain away often. They often commit manslaughter for fancied persecution.

The management of a case of acute dementia or imbecility is of the simplest character—diversions, outdoor exercise of very light character, iron, strychnia, arsenic and good food. Every effort should be used to prevent the patients from falling into careless or unclean habits. Uncleanliness may start a rapid decline in general health. Patients may be prevented from soiling their clothes or bed by leading them to a closet frequently during the day and at bed-time. In obstinate cases the catheter may be used periodically to empty the bladder and enemas to unload the bowels. Hypnotics are seldom required to bring about sleep, the patients usually sleep enough in the twenty-four hours. The prognosis, under favorable surroundings, in acute dementia, especially that caused by shock, or physical diseases, is very favorable. Recovery may take place in a month, oftener, however, in three or six months, and the recovery may be a sudden one, but is generally gradual.

Cases of acute melancholia require treatment by tonics—iron, arsenic, strychnia and bichloride of mercury. The food should be good, and when the disposition to refuse food is present, as it generally is, that which is the most palatable should be given to tempt the appetite. If the food is left near them they may eat it, if left alone and unobserved. Patients are often allowed to starve themselves too long at home on account of the shrinking of the other members of the family from any infliction of pain necessary in forcibly feeding them. Properly managed feeding may be well done without the use of stomach tubes. The greatest care should be used that nothing suggestive of suicide be placed in reach of the patient. Ropes, pistols, razors, poison, the verge of a precipice or deep water may precipitate a suicide, which would not have occurred had they not been presented. It is best that the patient should never be alone. The employment of hypnotics is often imperative on account of screaming and crying of the patient. This cannot be tolerated in the home as much as in an asylum, and often hypnotics must be used to an extent which may compromise the patient's chances of recovery. Frequently, however, sedatives are very beneficial, quieting the fears and the agitation of the patients, and procuring rest which they may have been without for successive days and nights.

A very serious mistake is often made in the incipiency of

melancholia in failure to recognize the existence of insanity until the case may have assumed the chronic form. Indeed, the transition from reasonable grisef to insane melancholia may have been so gradual as to be undiscoverable, and great care should therefore be used to make the discrimination as early as possible to forestall attempts at suicide so often made just at this juncture, and to bring the patient under treatment while the greatest benefit may be expected. In the incipiency of melancholia, and after the disease is fully established, as in other forms of insanity, the appearance of *definite delusions* should warn the friends of the patient that temporizing in treatment must at once give place to the most energetic measures of relief regardless of trouble or expense.

A Kentucky gentleman, sometime since, brought home to his wife, who had been a little despondent, some beautiful-blooded chickens. He followed her out to see them and asked her opinion. She expressed her pleasure at having them, but immediately said they were the most curious chickens she ever saw, because "they could talk as well as human beings." The terrible conviction that his wife was insane at once flashed upon him. The physician was immediately summoned, and the prompt treatment instituted doubtless aborted a melancholia, which the existence of delusion showed was of a most serious character and, usually, hopeless.

I cannot too strongly emphasize the terribly portentous character of the delusion, often lightly regarded, and which may even excite merriment. It often marks the bourne beyond which the individual's responsibility ceases forever, and may announce that the destiny of the soul is fixed like Lady Macbeth's signal for the assassins, in Hamlet.

> "Duncan, 'Tis the Knell
> Which summons thee to Heaven or Hell."

When the delusion becomes defined the patient should, out of sheer justice, be at once removed from home and the most approved measures, moral and medical, instituted for relief.

The special value of morphine and other sedatives in the treatment of certain cases of melancholia is remarkable, and should always be tried. I have cured melancholia of two years standing by a two weeks' treatment by morphine. In most cases,

however, no effect is produced, and the remedy must be discontinued on account of the effect on the secretions. Purgatives must generally be constantly used with morphine.

Acute mania of quiet type should have a trial of treatment at home, always on condition that the home and attendants are such as they should be, and that all precautions against violence or accident are used. He should occupy a room near the ground, though screened from the gaze of outsiders; should be convenient to the lawn for exercise in the open air. The window may be arranged so that it can be opened sufficiently to give ventilation, but not enough to allow of the escape of the patient. A room steam heated and lighted by electricity is very desirable. Generally it is necessary to employ a strong attendant for the day and also one for the night. As far as possible only the nurses and physician should be admitted to see the patient. A multitude of sympathetic volunteer nurses, who are often led to offer their services from idle curiosity in regard to the eccentric acts and saying of the patient, can only be harmful and distract the patient's mind at the most critical period of his disease, and when moral assistance will do more to influence recovery than at any later time. The room of the patient should have very little furniture in it, and everything which might be used as a weapon should be removed, for fear that a notion of homicide might be suggested.

An eccentric carpenter in the West was engaged with others in making a cattle-guard at a point where the railroad entered a cultivated field. A companion was standing in the pit bent over with his neck across a beam for convenience in working below him. Lying near was a broad-axe. The scene suggested the axe and block of the executioner to the insane carpenter. He raised the axe and with one blow severed his companion's head from his shoulders.

The digestive system should have early treatment to remove toxic substances and to put the patient in best condition to appropriate the food and medicine which may be thought best for him. A large proportion of patients require tonic treatment, notwithstanding they seem to have superhuman strength. Great physical strength often exists along with extreme anæmia. Iron, arsenic, chlorosive sublimate, strychnia, quinine, whisky and

eggs or milk, with the best food. In the home it is *necessary* to give hypnotics much more freely than in an institution. The effect of hypnotics, however, is generally harmful to the mental constitution, especially if continued night after night, and has doubtless prevented the recovery of many insane persons who might without them have gotten well. Sulphonal, trional, duboisin, chloral and cannabis indica are as harmless hypnotics in cases of insanity as any others. A combination of 1-50 grain of duboisin and ¼ grain of morphine is a powerful soporific. A warm bath or pack, a milk-punch or an egg-nogg, or a tumbler-ful of milk, especially if it is warm milk, or a good meal at bed-time sometimes promote sleep. Daily exercise in the open air and some employment of almost any kind is very important. Massage of the muscles may be required where they may waste from inactivity. Bathing regularly is important.

The rest treatment has been successfully tried in several forms of insanity to control excitement and keep down delusions of maniacal or suicidal character. The patient is kept in bed and constantly under anodynes, especially morphia, given many times in the twenty-four hours. The effect has sometimes been curative, but generally more harmful than beneficial. Under it the patient may be so impaired in his physical and mental strength and constitution as to destroy his chances of recovery.

General paresis comes on an individual so insidiously that it is often not recognized for many months after it attacks. If ever curable, it is so in the earliest stage before the mind has become seriously impaired by it. I have never seen a well-marked case recover, and I have probably seen one hundred and fifty cases in all. It is a disease which cannot be properly managed at home at all. The ordinary excitements and responsibilities there invariably rapidly tell on the patient's mind, bringing about rapid failure. The perfect quietude of a well-regulated ward and the simplest form of light employment, afford the only conditions in which the patient can be of any comfort to himself or others, or where there is any chance of prolonging the patient's life beyond a year or two. Under ordinary circumstances this is the length of the paretic's life. If his environment is perfectly peaceful he may live from four to ten years, and with very slight but

progressive dementia. If kept at home the paretic should have only one or two attendants, and be kept from society and excitement of any kind. His habits should be regular and his system kept in healthy condition. He should have out-door exercise and easily digested meals.

Probably the only form of paresis curable by treatment is that caused by syphilis; it is sometimes called pseudoparesis. It is said that many of these have recovered under anti-syphilitic treatment. Under this idea I have now a patient who takes about an ounce of iodide of potassium a day, together with mercurial inunctions. He has been very slightly benefited. I have no hope of curing him. He has had four apoplectoid convulsions. Each had some paralyzing effect, which disappeared, however, in a few days. The last convulsion deprived him of speech, which returned in a week, but left an aphasia, which may also disappear. The iodide of potassium treatment should be employed in most cases of paresis to test the specific or non-specific character. Beyond this, little treatment is required, except to meet indications as they arise. Regulate the bowels, use sedatives for nervous or circulatory excitement. If properly handled many paretics never become dangerous or difficult to manage. The bromides may assist in quieting his delusions, should they become active. This seldom occurs, as the disease has uniformly the tendency to imbecility. In the latter stages of paresis the physician and nurse have only to prevent the patient from acquiring filthy habits and preventing bed-sores, which are very apt to form unless the patient is carefully watched.

One of the most important advances made in the past few years in asylum management is the establishment of the hospital ward for the care of just such patients as I have described, and all other insane inclined to become filthy. A day and night service is maintained, the ward being well lighted at night, and every measure used to re-establish cleanliness in patients. It is mainly due to Dr. Wallace that this system was inaugurated and successfully carried out at the Western Asylum. It would require two excellent attendants to care for a paretic at home as well as it is done in the asylums.

The paranoiac is generally allowed to remain at home, although he is often the most dangerous of all the insane. He

is usually possessed of a single delusion, and that almost always of persecution. He thinks he is shadowed by assassins or persons who are trying to find opportunity to injure him. His best friends are seeking to defame his character or to destroy his business reputation. The paranoiac is often a thrifty, active and correct business man, having the confidence of the community in which he lives. His story of persecution may be imparted to but few, and some of these may even give it credence. If naturally an amiable man he may never attempt homicide. He may even keep aloof from his fancied persecutors and live peaceably for many years. This patient rarely recovers, and his treatment is mainly moral, to divert him from purposes of revenge for fancied injuries. Should milder measures fail to control him he should be confined in a strong room in the house, and when at large should be guarded constantly by an attendant.

A homicidal paranoiac was committed to the Western Asylum a few years ago, and his shrewdness (characteristic of the form of insanity) enabled him to escape in less than a month. He was heard from in Mississippi, where he had been caught in some unlawful act and sent to the penitentiary. I tried to persuade his father, an estimable gentleman, to let him serve out his term, taking all the hardships that might come. I did so because I regarded the case as hopeless under ordinary management, and I hoped the severe discipline he was being subjected to might bring about a healthy turn in his mental operations and possibly restore him; besides I apprehended that he might, with his persecutory ideas, commit manslaughter if he was allowed to return. After several months his father, although he was the object of the homicidal disposition of his son, could not withstand his urgent appeals for release, and with little difficulty succeeded in getting his pardon on the score of insanity. He is now at large in the State, and not restored.

There is another lunatic now serving a twenty years' sentence at Eddyville who is insane, and was at Hopkinsville, and there regarded as a dangerous man. He recovered, was returned to jail and was sent to the penitentiary by a jury for manslaughter committed before he was sent to the asylum. When the governor wrote me of it I gave him all the facts, and advised that he be kept there instead of the asylum, because if he should

become apparently well he might be discharged by a superintendent from the asylum and kill someone else, should maniacal frenzy suddenly develop again.

The treatment of all forms of insanity has, the past few years, been attempted with the dessicated thyroid gland of the sheep especially. I believe I have observed some good effects in more than one patient, whether the patient was supposed to have thyroid disease or not. The fine effect of the thyroid feeding in restoring the healthy color and softness of the skin in patients is remarkable. The effect upon the spirits and mentality of chronic cases of all forms of insanity is very apparent. It is necessary to closely watch patients while using the remedy, as dangerous acceleration of the heart's action has been repeatedly caused by it. In such event it is only necessary to omit the remedy for a few days and begin again. It is unsafe to begin with more than five grains of the dessicated gland twice a day. The quantity is generally pushed to twenty grains, but gradually and very cautiously.

The curative effect of the thyroids upon myxædema is a common observation, and it has been found that obese cases of insanity have more frequently been benefitted than the delicately constituted. The whole subject is a very interesting one.

Surgical treatment, especially in the forms of insanity among females, which seem to be referred to the genital organs as the cause of mental unsoundness, has not yielded the result looked for Oöphorectomy and hysterectomy have been tried in very many cases, without the slightest effect, even in the various forms of erotomania, the venereal passion being left as strong after complete extirpation as before.

A London, Ont. experimenter, in this line, however, Dr. Bucke of Montreal, has recently published a list of patients operated upon with more favorable results than any previous operator has had.

It is not contended that the insane should not receive the same surgical treatment for diseased conditions of the genital organs as the sane, if the mental state makes the operative measures safe.

It will be seen that, with proper precautions and safeguards, many insane people may be treated at home, and yet be just to

their best interests and rights. These, in their insane condition, they themselves are no longer able to defend, and must be left as a sacred trust to the protection of their natural guardians, who too often commit fatal errors in their management, and may do so out of the purest affection and loyalty.

THE TREATMENT OF ENTERIC, OR TYPHOID FEVER, ACCORDING TO THE METHOD OF BRAND.*

BY W. F. CLARY, M.D., OF BELL BUCKLE, TENN.

I believe the treatment of enteric, or typhoid fever, as practiced by Dr. Ernest Brand, of Stettin, Germany, and known as the Brand method, is the best treatment ever devised. I believe that hydrotherapy by the Brand plan, or some modification of it, which is the essence, inspiration and legitimate offspring of Brand's teachings and writings, is to be, and will be, the practice of the coming ages, in which internal medication will play a very small part. I believe that a great deal too much calomel is given in the treatment of the disease, and often harm is done by it. It ought seldom be given before the tenth day of the disease and never afterward.

To the proof: I now introduce Dr. James C. Wilson, Professor of the Practice of Medicine in the Jefferson Medical College, Philadelphia. I clip the following extract from his work, "Applied Therapeutics," just issued from the press this year, 1897:

The relative value of different plans of treatment can finally be determined only by comparison of the results of very large collections of cases rigorously submitted to the same management under similar conditions. This has been practically accomplished in the case of enteric fever. Satisfactory mortality statistics can be obtained only from the records of large hospitals. Drugs demonstrably capable of decidedly influencing the cause and results of the disease in a favorable manner are not known. An analysis of the hospital statistics of the period

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*Read at the Sixty-fourth Annual Meeting of the Tennessee State Medical Society at Nashville, Tenn., April 11, 1897.

immediately preceding the introduction of the treatment of systematic cold bathing, and of the present statistics of hospitals in which this plan is not employed, shows a mortality ranging between 15 and 25 per cent., with occasionally series of cases yielding a death rate as low as 12 per cent., or as high as 30 per cent. The more recent statistics of those institutions in which cases of enteric fever have been treated exclusively by the method of Brand show an abrupt and sustained decline of the death rate to about 7 per cent. The number of reported cases is enormous. They embody the results of observation by different clinicians in all parts of the world, and many of the collections of cases, as those of Brand himself, those of the military physicians at Lions, those of Hale, of Australia, and those of the German Hospital of Philadelphia, are sufficiently large in themselves to establish the value of the method.

In point of fact, the literature of internal medicine shows no aggregate of statistics in regard to the treatment of any other disease that has reached such proportions, and in which a definite plan has been carried out with the same rigid adherence to rule. No drug or method of treatment is at present known by which enteric fever can be aborted. Many different methods of treatment have been advocated, and innumerable drugs have been lauded as exercising a special favorable influence upon the course of the disease.

Enteric fever, like the other acute specific febrile infections, runs a course uninfluenced by medicines. Blood-letting, emetics, purgatives, astringents, turpentine, silver nitrate, the mineral acids and antiseptics have been regarded in turn by earnest and conscientious practitioners as useful or necessary in the treatment of the disease. The greater number of these agents have no longer even an historic interest. In the words of Osler: "No known drug shortens by a day the course of the fever. No method of specific treatment, or of antiseptics of the bowel has yet passed beyond the stage of primary laudation." A consideration of the available data, including the present statistics of large hospitals, warrant the assumption that at least 70 per cent. of the cases recover under indifferent methods of treatment, that about an additional 15 per cent. of all patients get well under various plans of management, which include strict attention to

diet, good nursing, and the prompt and judicious treatment of urgent symptoms and complications, and that under treatment by systematic cold baths, according to the method of Brand, the recoveries among cases coming under treatment early in the course of the disease is not less than 93 or 94 per cent. The death rate, as a test of the value of treatment, when made upon a sufficiently large scale, must be regarded as conclusive.

It has been demonstrated that the pathogenic bacilli do not appear in the stools earlier than the tenth day, very often not before the sixteenth or seventeenth day, and the assumption is warranted that the bacilli to which the infection in any given case is due have entered the lymph structures of the intestine during the period of incubation and already at the time of the manifestation of the symptoms, are growing in Peyers' patches, the mesenteric glands, the spleen, the lymph elements of the liver and other organs of the body. The toxins that result from that growth are evolved within the tissues of the organism itself, not in the intestinal canal. Intestinal antiseptics, in so far as the pathogenic organisms of enteric fever are concerned, is, therefore, directed against germs not present in the bowels prior to the breaking down of the intestinal lymph elements, and must, for that reason, be largely inoperative. General antisepsis, in so far as any possible germicidal influence upon bacterial forms, diffusely implanted in the lymph tissues throughout the organism, is concerned, is a vain fancy wholly unsupported by facts. The parasite is more resistent than the host. From clinical and pathologic considerations alike, the whole subject of the antiseptic treatment of enteric fever falls to the ground.

Bland's first publication on this subject was made in 1861. The method made but slow progress in Germany until toward the close of the Franco-Prusian war in 1871. About this time it was introduced at Lions by the French military surgeons, who, as prisoners of war, saw it practiced at Stellin. Within recent years it has been very extensively adopted in hospital practice, and, to some extent, also in private practice. The treatment of enteric fever by systematic cold bathing, according to the method of Brand, has been practiced continuously in the German Hospital of Philadelphia since I introduced it in my service there on the first of February, 1890. It has been the only treatment

employed, and all patients suffering from this disease have been submitted to it, except in very rare cases, in which the axillary temperature has not reached 101½°, those brought in moribund, and those admitted late in the course of the attack, during or after the third week. The results are most impressive. They show that in the method of Brand, systematically carried out and applied to successive cases as they present themselves, we have the means of saving out of every hundred cases of the great endemic disease of the present epoch of our civilization at least seven more lives than by any other plan."

My second witness is Dr. William Pepper, Professor of Theory and Practice of Medicine in the Medical Department of the University of Philadelphia. I clip the following from his work, "American Text-Book of Theory and Practice of Medicine, 1893:"

"It is being more and more clearly made out that a large proportion of this mortality comes directly or indirectly from the baleful influence of the pyrexia. This statement has been confirmed exclusively by the remarkable results obtained in a large series of cases by resolutely keeping the temperature down below the temperature of 102½°. The only way this can be done safely and effectually is by the external use of cold water, and hence to-day hydrotherapy is an almost constant feature in our treatment of typhoid fever. All of the modes of supplying cold water externally are useful and have their respective places, but from none of them can such results be obtained as from the systematic use of cold water baths in precise accordance with the method advocated by Brand. It must be admitted that no such results have ever been achieved as are now reported by many observers who have followed his directions implicitly."

Brand's last statistics are really remarkable. He tabulated 1,223 cases treated according to his method by himself and a few other clinicians. Only twelve deaths occurred, a mortality of 1 per cent. All of the fatal cases were individuals who did not come under treatment until after the fifth day of the disease. He claims, as a result of thirty years' experience, that every case of typhoid fever will recover in which his method of treatment is commenced before the fifth day. The percentage of recoveries in general have not been so good as in the remarkable statistics

recently published by Brand. It must be remembered, however, that in many series of cases some of the patients have not been treated in strict accordance with his method, nor from a sufficiently early day. The fact remains, in spite of this, that no other mode of treatment has ever yielded such good results on a large scale. Not only is the mortality lessened, but the whole course of the disease seems to be rendered milder.

Less than six weeks ago (excepting Tennessee, whose representatives I presume would prefer to express their views at this meeting) I sent out to the Professors of the Practice of Medicine in the leading medical schools in the United States a circular letter in which I asked two questions, and left space for the answers.

Question 1.—With the accumulation of the light of experience of others in whose opinion you have the highest regard, and that of your own personal knowledge in the treatment of enteric or typhoid fever, can you say to-day that there is any plan of treatment that can be said to be the best plan, if so, and why?

Question 2.—In view of the danger of too much purgation, do you think that calomel can be safely withheld in the treatment of all cases of typhoid fever? If not, can you state a day in the course of the disease after which no calomel ought be given?

Dr. John Dawson, Jr., Professor Theory and Practice of Medicine, Medical College of the State of South Carolina, Charleston, answered: Yes, hydrotherapy, either the Brand method or some of its modifications. It reduces temperature, prevents tissue waste and muscular degeneration, quiets the nerve centers, and allows the self-limited to run its course with the least detriment to the patient.

Question 2.—He says, I never give a dose of calomel in typhoid fever unless marked constipation be present, and then I administer it solely for its purgative effect; the routine administration of calomel is harmful and irrational.

Dr. William Osler, Professor Theory and Practice of Medicine, Johns Hopkins University, Baltimore, to the two questions he answers: I never give calomel in typhoid fever, regarding it quite unnecessary. I have had under my care at the Johns

Hopkins Hospital since it opened about 550 cases, not one of which, so far as I know, has received any calomel. Of course, I do not think that any harm results from an initial dose, but it, too, I regard as not at all essential. Our results with the Brand treatment have been according to the last published report, very good—300 cases treated with a death rate of a little over seven per cent.

Dr. James Tyson, Professor Clinical Medicine, University of Pennsylvania, Philadelphia: Question 1.—Yes, emphatically, as carried out by Brand himself, because my own experience and those in whom I have confidence attest it. Question 2.—I do not consider that calomel is peculiarly indicated in any stage of typhoid fever.

Dr. Augustus A. Eshner, Professor Clinical Medicine in Philadelphia Polyclinic, Philadelphia, Pa.: Question 1.—In my opinion, the best method of treating enteric fever consists in the intelligent and systematic employment of cold baths, viz.: the immersion of the patient for fifteen minutes in water at a temperature 68 degrees F., at intervals of three hours, whenever the temperature, taken in rectum, is 102½° or above. By this means the mortality has been reduced from fifteen or twenty per cent. to five or seven per cent. Question 2.—I shall scarcely be willing to consider calomel essential to the treatment of typhoid fever. There are cases in which it can be safely withheld. If constipation existed, I. should be willing to give calomel during the first week of the disease, perhaps as late as the tenth day. Evidence of the existence of ulceration of the bowel would, however, contra-indicate the administration of purgatives by the mouth at any period of the disease.

Dr. Francis Delafield, Professor Theory and Practice of Medicine, College of Physicians and Surgeons, New York: Question 1.—There can be no question that the Brand method of treatment has greatly diminished the mortality of typhoid fever. To be efficacious, this treatment must be carried out exactly as directed by Brand. It is also necessary to have common sense and not continue the treatment in patients who are made worse by it. Question 2.—As regards calomel, I very seldom use it.

Dr. George Dock, Ann Harbor, Mich., Professor Theory and Practice of Medicine, University of Michigan: Question

1.—Best at present is that often called after Brand and developed, especially in this country, by Baruch, J. C. Wilson, and Osler. Their views I share, and their statements I can not improve. For the why, see their writings. Question 2.—Calomel can often be withheld. I frequently treat cases without any at all; and, on the other hand, sometimes give it in various stages up to and including convalescence. The condition of the patient, and not the day, is the thing.

Dr. James T. Whitaker, Cincinnati, O., Professor Theory and Practice of Medicine, Medical College of Ohio. Question 1.—The treatment by cold baths is without doubt the best plan. Chiefly, because the cold baths support the heart, and more rapidly eliminate the toxines of the disease. Question 2.—Calomel or any other purgative is contra-indicated after the third day by the condition of the small intestines.

Dr. J. C. Culbertson, Professor Theory and Practice of Medicine, Medical Department University of Cincinnati, Cincinnati, O. From Dr. Culbertson I received a long and exceedingly interesting letter, which I am sorry that I find now that I can not spare space to copy in full. So I will try to give the gist of it. Instead of cold baths to lower the pyrexia, whenever the temperature rises to 103°, he gives an enema of ice-water to the amount of a pint or a quart, to be thrown gently as high up in the bowels as possible. This to be repeated every three or four hours if necessary; and, when the temperature was persistently high, could be given every hour; if actually required, can be repeated as often as necessary. In this way the temperature can be kept down without the use of any other febrifuge. He does this in all diseases for reduction of temperature, when there seems to be any indication for such a remedy. He says it acts well, never does any harm, and is a great source of comfort to the patient. He likes it better than lifting the patient in and out of the tub, and does not require physical help on the part of three or four persons, and is better than sponging, as it does not wet the bed. One attendant can do all the business. It also stimulates and washes out the colon.

He sometimes gives no medicine. He gives much stress in keeping down the temperature with the ice-water enemas. As to diet, he suggests fresh milk, but uses strained soups or ani-

mal broths as a change with the milk. He mentions a number of medicines that he administers for special purposes. He commences the treatment of his cases by giving a purgative of three grains of calomel and five grains bicarbonate of soda. If this does not act, he gives a drachm of magnesia citrate in a whole glass of water, and this is repeated if necessary. Later on in his letter, he calls up this subject and says he never give more than the one dose of calomel, as mentioned, and that is in the first of the attack. In a large hospital service, and some private practice, he has not lost a patient in two years with typhoid fever. He does not claim that every case will be cured, but nearly every one. The treatment depends for success upon good, intelligent nursing.

Dr. J. N. Allen, Professor Practice Medicine, University Medical College, Kansas City, Mo. Question 1.—Yes. Intestinal germicide remedies with opiates to control reflex irritation. Cool sponging or cool pack to control temperature. Heart tonics in the latter stages, and liquid diet. Question 2.—The large benefits of calomel are in its germicidal effects. It should be given in small doses every fifteen or twenty minutes until three grains are given. This will be given at the onset of the disease, possibly to be repeated every other day; to be followed, if necessary for its purgative effects, with castor oil; and not to be given after first ten days.

Dr. Henry Lyman, Professor Principles and Practice of Medicine, Rush Medical College, Chicago, Ill.: Question 1.—Brand's cold water bath treatment; justified by results. Question 2.—No.

Dr. Frederic P. Henry, Professor Practice of Medicine in Woman's Medical College, Philadelphia, Pa.: Question 1.—The cold bath treatment of typhoid fever, when it can be carried out, is, in my opinion, the best; and proved to be so by the largest and most reliable statistics. I do not consider, however, that it dispenses with internal antiseptics, of which I believe the best to be thymol. I began to use the thymol in 1888 and have employed it ever since in a very large number of cases, and as my experience increases I am more and more convinced that it exerts a decidedly favorable action upon the disease. Question 2.—I do not consider calomel indispensible in the treatment of typhoid fever, but regard it as the best purgative in that disease.

Dr. J. N. Dantworth, Professor of Practice of Medicine in the Northwestern University, Woman's Medical College, Chicago, Ill. Question 1.—My belief is that no form of internal treatment has any perceptible effect upon the disease. I think the so-called antiseptic treatment especially fallacious. The Brand treatment is cruel and barbarous. Frequent sponging or the sheet pack, sterilized milk, plenty of pure water and no medicine except demanded by special symptoms or complications. These are my methods. Question 2.—I have never used calomel in typhoid fever except as I would use any other apperiant. I should prefer some mild saline like rochelle or magnesia citras, if anything is needed. Let the bowels alone.

Dr. John Cronin, Professor of Practice of Medicine, Medical Department of the Niagara University, Buffalo, N. Y. Question 1.—I know of no "best plan" for all cases. The many or few conditions entering into every case of true enteric fever will require a correspondingly best plan governed by the experience of the physician. I have seen more cases of enteric fever than most men now living, and concluded long ago that while there was a general treatment that would apply to every case, there was also a particular treatment that would only apply to special cases. It is losing sight of this fact that has led so many into lauding this or that drug as a panacea. Question 2.—Inasmuch as constipation is a frequent condition in the prodroma of enteric fever, I, as a rule, direct a single dose of calomel and rhubarb, after which I see no indication for its use.

Dr. Chas. G. Stockton, Professor of Principles and Practice of Medicine, Medical Department of the University of Buffalo, Buffalo, N. Y. Question 1. —Yes, the hydriatic treatment by the Brand system unmodified, as directed by Brand himself. I have had six years' experience with this method in hospital and private practice. The fatality has decreased from (in hospital) 23 per cent. to less than 4 per cent. the past year. Average from 75 to 100 cases annually. Question 2.—No; I think there is rarely too much purgation, generally there is too little. Calomel or castor oil is frequently used in all my cases.

Dr. A. M. Carpenter, Professor of Practice of Medicine, Barnes' Medical College, St. Louis, Mo. Question 1.—Yes,

modification of Brand's method added to the old plan of "hands off," save where necessary to combat special intercurrent features. Ice-cap to subdue delirium and head symptoms. Sponging cool as tonic to the skin, to promote evaporation, or tepid, with vinegar, to dispel heat, prevent oxidation of tissues, and husband vital energies. By holding fixedly for forty-two years to above plan, conjoined with good fortune to limit oxydation, no deaths in my hands have occurred north or south of Mason and Dixon line. By fifteen minutes' sponging day and night many can be saved, if the heat line is kept at 101; but eternal vigilance is the price of victory, sparse faith in antiseptics, Valentine's beef juice and alcoholics, strychnia and rest, foot warmth, abolition of textile fabrics inr oom, expectancy, conservatism, which means to regulate every event by amiable methods, nothing spoliative is permissible in the career or treatment of the disorder, subdual of heat almost guarantees recovery under fair treatment. Question 2.—In the main, yes, should the liver strike work, metabolism be faulty, the initial use of a few tenths of calomel, I might concur in, otherwise I do not commend it at any period of typhoid. I do not believe that veritable typhoid can be aborted.

This ends the list of witnesses.

All along the pathway of my professional life I have been seeing cases of typhoid fever which were certainly purged too much. It can be set down as a general rule, that the cases are more serious where the actions of the bowels are more fluid and more frequent, and that the cases are milder when they are in the opposite condition. If the significance of this can be kept before the mind all the time, much good will be done; but it is well known that typhoid cases, even those which are constipated, are much more susceptible to the action of laxatives and purgatives than in constipation connected with other diseases, in fact, this is to be considered in diagnosis. By purgation a mild case can be transformed into a very serious one, where you will find much trouble ever again to properly control it. There are doctors all over the land who are giving one, two, three, four or five of what they call courses of calomel during the course of the disease of typhoid fever. This is generally not confined to any one locality. They stress the point of keeping the tongue clean and arousing the liver to action.

Too much thought and attention is given to this idea. Too much calomel is given right along this line. I do not want the fact forgotten that Brand has attained his dazzling success without a single dose of calomel. His cases were not damaged by it. Many of our best men are unfriendly to calomel, while they may occasionally use some in an exceedingly cautious way, very early in the disease. This is the bowlder on which many a human craft has been wrecked, and is the short-cut road to the cemetary. A great deal of the purging is often done before the doctor sees the case. The profession ought specially to instruct the laity on this subject. Any other purgative is as objectionable as calomel. The reason why I direct my artillery at calomel is because the doctors seem to have selected calomel with which to do their purging. Calomel is so convenient, so easy of administration, used often to placate the abominable idea of the laity, who are not satisfied with any doctor who is not continually pouring medicine down the throats of their patients. Right at the ten-day station of the treatment of typhoid fever a red lantern ought to be hung out to warn the passer that he is near the danger line.

The witnesses I have introduced seem to be almost unanimous in their opinion as to which is the best plan of treatment for typhoid fever. These men have been selected by the trustees of their respective institutions as fitted for the places of trust they fill. No novice is selected. The man must have shown special adaptation to the place he fills prior to his employment. Our material is fresh; we go back four years to quote Pepper; all other evidence has been written this year. Every letter I read was written less than six weeks ago.

After seeing the trend of thought, as expressed in the evidence given, it does not require microscopical visions to see into the future, nor extraordinary sagacity to know what is going to be taught hereafter. If we know what is going to be taught the medical student of to-day, we can with certainty predict what will be the practice of the future.

It is claimed that the Brand plan is difficult to be carried out in private practice, and this is correct; but when we once determine definitely which plan is the best, and why it is the best, we have made a long stride forward. Brand's marvelous success

and valuable work are due to presistent and successful efforts to keep the temperature down below the danger line where serious mischief is done, and also the elimination of damaging medicines, especially purgatives, calomel being the most prominent for mischief.

With these facts before us, we will be able to eliminate all difficulties. Dr. Culbertson's effort to get rid of the trouble and difficulty of the application of cold water to lower temperature is strictly to the point. He deserves our commendation. With the information we have before us, and the presistent effort along this line, I feel that the goal of success is in the near future. When we reflect upon the past history of the ravages of typhoid fever, when we think of the millions who have been slain by this disease, every community of any size upon the habitable globe having furnished its victims to the destroyer, many of them were the flower of the land, it is too appalling to contemplate. It makes the heart sick to think of it. But now scintillations of light come peering through the murky clouds of the past, and behold a new era is born. A bright and blazing star of hope has appeared above the horizon that bids us good cheer, and promises better success in the future. Brand has certainly demonstrated that one-half of the victims of the past could have been snatched from the grasp of the destroyer if we had known and had carried out the proper treatment. It is a humiliating confession, but none the less truthful, that we did not know how to treat the disease until Brand taught us. No blind adherance to paternal ancestral errors nor any feelings of esthetic sentimentality should swerve us from the clean, clear-cut line of truth and duty.

In 1861 the ponderous old car of progress in typhoid fever treatment moved out from Stettin, Germany. For many long years she traveled at a snail's pace, but after coaling at a number of places in Europe her momentum was increased. In 1890 she crossed the Atlantic. On the first of February she steered up to the Philadelphia coaling station and took on fuel; since that time having touched at Baltimore and other places and added to her fuel supply, she now is moving at a better speed. She is coming, certainly coming! Listen! I hear the rolling of the wheels. If there is anyone on the track, be he who he may,

he had better heed the sound of the whistle. How peculiarly fitting it seems that pure, sparkling, cold water, prepared by God himself to nourish and invigorate his creatures and beautify his footstool, should be found to possess by application, curative properties in typhoid fever, when weighed in the balance for good outweighs all of the medical books that were ever written, and all else for good from every source known. This is God's pure and unadulterated medicine. How futile all of our efforts to compound a prescription of positively known utility.

The difficulties that loom up before us when we consider the plausibility of the general promulgation, dissemination and every-day application and practical use of the Brand method of treatment, or its equivalent modification to every nook and corner of the globe, appears mountain high. To give up accustomed opinions that have been ground into the warp and woof of the make-up of men for ages is no small undertaking. The older teachers of medicine possibly may be slower in accepting reform. If they had said that the horse was seventeen feet high, they may be slow in lowering their measure. To the younger men the burden of the work belongs.

I had rather have the honors of Brand than to be a king on the throne or the ruler of any country on earth. Generations upon generations yet unborn will make pilgrimages to his grave, strew flowers and place stones upon the monument to the memory of his imperishable work for typhoid fever sufferers; the capstone of which will not be placed until the death knell of time is sounded on the evening of the last day.

I have just learned that Brand died on the 22nd of March last.

FRACTURE OF THE INTERNAL CONDYLE OF THE HUMERUS.—I am firmly convinced that it is desirable practice to postpone passive motion until the intermediate callus is firm enough to prevent motion at the seat of fracture. Postpone passive motion for from eight to twenty-one days, in the child; in the adult, for three or four weeks. It is by securing rest for the fracture that we diminish as far as possible the amount of exuberant callus so often in the way of an ideal functional result. —*Dr. Senn, in Medical Record.*

Selections.

CONGENITAL PULMONARY STENOSIS.—Dr. Henry Hun, in the *Albany Medical Annals* for February, 1897, reports a case of congenital stenosis of the pulmonary orifice and of the conus arteriosus. The patient was a man 27 years of age, who had followed the occupation of a pedlar and had frequently been exposed to bad weather. He gave a history of having been weak and delicate as a child, not walking until the age of five years. At 13 he suffered an attack of acute inflammatory rheumatism. Five years later he complained of pains in the region of the heart, and of dizziness; was confined to his bed for three months; at this time there was some edema. At the age of 23 he suffered with cough and fainting spells. There was also some hemoptysis at this time. He had been a frequent inmate of several hospitals.

On coming under the care of Dr. Hun the patient was found to be well nourished, with clubbed fingers, cyanotic finger-tips and lips. He suffered from extreme dyspnea on slight exertion, and at these times his whole face became cyanotic. The thorax was rachitic, with a funnel-shaped depression over the lower portion of the sternum. There were the signs of consolidation over the right apex.

Several months later the patient again came under observation; the cardiac sounds were practically the same, but the evidence of tuberculosis was more marked.

The autopsy showed an extensive tuberculosis of both lungs and an enlarged heart that weighed 13½ ounces. The right ventricle was larger than the left, and the walls of the right ventricle fully as thick as those of the left, measuring half an inch. There was a great degree of stenosis of the pulmonary orifice. The leaflets were united, there being left a small triangular opening. The other valves of the heart and the muscular tissue seemed to be entirely normal. The auricles were enlarged, particularly the right. There was a valve-like opening in the

foramen ovale. There was no communication between the ventricles. No examination was made of the ductus arteriosus. The case, therefore, was one of uncomplicated pulmonary stenosis without any other cardiac abnormality except the insignificant opening in the foramen ovale.

The question is discussed by Hun as to whether this lesion was due to a congenital defect, an intra-uterine endocarditis, or an endocarditis occurring at the time of the rheumatism. He concludes that the stenosis was of inflammatory origin and occurred during fetal life. He also believes that the valvular lesion in this case was not made worse to any degree by the rheumatism. He points out one fact of clinical interest, namely, that the murmur was best heard at the lower part of the sternum, and believes that this was due either to the peculiar conformation of the chest or that the murmur was produced rather at the commencement of the conus than at the pulmonary orifice, and was consequently heard lower down than usual.

Death from tuberculosis is not all uncommon in cases of congenital heart disease.—*Medicine.*

SECOND ANTITOXIN REPORT.—The American Pædiatric Society's supplementary report on the use of antitoxin in laryngeal diphtheria is worthy of close study.

Laryngeal diphtheria requiring operative interference furnishes the best test of the methods of treatment. There is entire harmony of opinion as to its severity, and its statistics before and after the advent of the antitoxin are more reliable than those of most other well-observed diseases. The report contains an analysis of 668 cases operated upon, with a mortality of 27.24 per cent. As the report mentions, early statistics of intubation, in pre-antitoxin days, could show only 27 per cent. recovery. Other factors remaining constant, the use of antitoxin has caried the percentage from 27 per cent. recovery up over the divide till it now reads 27 per cent. mortality.

The next point of importance is the percentage of cases escaping operation under antitoxin treatment. It was formerly believed that 90 per cent. of laryngeal cases required operation; now, with the use of antitoxin, 39 per cent. require it.

The returns from physicians show, for the most part, an earlier use of antitoxin in diphtheria treatment and an increasing confidence. There exists, however, a certain amount of timidity. Doses from one-tenth to one-fourth the amount required have been administered, in some cases 200, 400, and 500 antitoxin units being used, whereas the dose required is from 2,000 to 2,500.

It is believed that the percentage of mortality will gradually decrease. This decrease will depend upon three factors:

First, a better quality of strong antitoxin will be found in the market.

Second, the serum will be administered earlier.

Third, appropiate doses (2,000 units in laryngeal cases) will be employed.

The report bears the impress of painstaking labor, and constitutes an addition to the subject. The American Pædiatric Society has developed collective investigation to a high state of usefulness.—*N. Y. Medical Record.*

THE USE OF OPIUM IN THE DIARRHŒAL DISEASES OF CHILDREN.—In no other condition is so much discrimination demanded in prescribing opium as in the diarrhœal diseases of infants and young children. Much opposition to its use has been elicited during recent years, and many practitioners have discarded it entirely. Much of this opposition is, unquestionably, well founded. While its improper use may do great harm, when properly used, it is an agent too potent for good to be wholly abandoned. We had occasion some time since to present in brief form its indications and contra-indications in diarrhœa as follows:

It is contra-indicated—1, in the first stages of acute diarrhœa, before the intestinal canal has been freed from decomposing matter; 2, when the passages are infrequent and of bad odor; 3, where there is a high temperature or cerebral symptoms are present; 4, when its use is followed by elevation of temperature or the passages become more offensive—symptoms which indicate toxic infection from putrefying intestinal contents.

It is indicated—1, when the passages are frequent, with pain;

2, when the passages are large and watery; 3, in dysenteric diarrhœa, together with castor oil or a saline; 4, in late stages, with small, frequent, nagging passages; 5, when the passages consist largely of undigested food, and the bowels act as soon as food is taken into the stomach.

The most important contra-indications are admirably described by Dr. Miller. In the cases he reports, the dangerous symptoms were, no doubt, due to the absorption of toxic principles generated in the intestinal canal. The locking up of such putrefying matter by the use of opium violated every right principle of practice. Diarrhœa would have been a conservative process, and frequent movements should have been encouraged. He clearly shows the reason for possible bad results in the following sentence: "Opium arrests the intestinal movements, and prevents the elimination of these toxic materials, and may give rise to grave symptoms of intoxication and sepsis."

The dose should be as small as possible, sufficient being given to relieve pain and check peristalsis. It should not be added to the ordinary diarrhœa mixture, to be repeated at short intervals. It should be given alone, and at intervals sufficient to allow the effect of one dose to partially subside before another is given. This interval will be rarely less than four hours.—*Pediatrics.*

NAUSEA FROM CHLOROFORM ANESTHESIA.—When an operation under chloroform has been finished, pour vinegar upon the mask until it is well saturated, and leave the mask in place. As the vinegar evaporates more should be added. This simple procedure has a marked effect in preventing or modifying the nausea after chloroform anesthesia. It was first advised by a French surgeon, who says that it acts by the vinegar's forming a non-irritating combination with the chloroform vapor already changed in the lungs.—*International Journal of Surgery.*

MODERN NEUROLOGICAL NOMENCLATURE.—In the world of fashion, of literature, of art, in fact, wherever one turns, it is a common spectacle to see some well-worn object tricked out in a new dress, and it is astonishing how often this passes current for

new. It is a reversal of the Scriptural injunction, for the old wine is racked off and put into new bottles, or, at all events, the label stares forth in fresh and gaudy print, instead of the sombre, cobwebby mien so beloved by the connoisseur.

For many decades we have been accustomed to speak of the nerve cell with its axis cylinder process and its protoplasmic processes. To-day, if we use this obsolete nomenclature, we are in danger of having it said that we are non-progressive. Without attempting to belittle in any way the important work of Golgi, Raymon Y. Cahal, Flechig, Van Gehutchen, Lenhossek and many others, it must be said that the new nomenclature implies more new discoveries concerning the structure of the central nervous system than the facts warrant. Much stress of late has been laid on the idea that the nerve cell with its various processes is a unit. As a matter of fact this is not strictly a new conception.

For many decades we have admitted that the axis cylinder process was continuous from the cell to the termination of the nerve, and that its function was to transmit stimuli, centrifugal and centripetal. In like manner the protoplasmic processes were regarded as branches of the cell and were supposed to connect, in some unknown way, groups of nerve cells. The new nomenclature speaks of the cell and its ramifications as the neurone, the axis cylinder process as the axone, and the protoplasmic processes as the dentrites. That this is somewhat confusing is evident from the fact that at least two prominent writers on the histology of the nervous system (H. H. Donaldson, in The American Text-Book of Physiology, and Schäfer, in Quain's Anatomy) employ the term neurone as synonomous with axis cylinder process.

The newer staining methods, particularly Golgi's silver method and the various modifications of it, have shown a wealth of detail never before demonstrated. By these methods our ideas as to the course and termination of the axone or axis cylinder processes have been greatly cleared up. In addition, certain details of structure, both as regards the axones and the dendrites, have been made out, the exact functional importance of which is not as yet apparent. Much important light has been thrown on the course of fibre tracts in the central nervous sys-

tem, and also upon the relations between different groups of nerve cells. The new nomenclature, however, is a distinct improvement upon the old and is coming into general use among neurologists. In fairness to the uninitiated, it must be said that the "new idea" of the structure of the central nervous system, as Cahal calls one of his recent communications on this subject, is merely an amplification and extension of the older views, made possible by the discovery of improved staining methods.—*Maryland Med. Jour.*

THE ABSORPTION OF IRON IN THE INTESTINE, AND ITS RELATION TO THE BLOOD.—In the *Presse Medicale* for February 10th M. Chassevant states that M. Cloetta has made some experiments in regard to the elimination of iron in the economy (Archiv für experimentelle Pathologie und Pharmakologie, 1897). For this purpose he used ferratin, which exercises no caustic action on the tissues. His experiments demonstrated that in dogs which were subjected to a milk diet, the iron injected into the veins in the form of ferratin was eliminated by the large intestine. Quincke has also ascertained this by micro-chemical examination. The author also investigated the means of assimilation of this element when administered by the digestive tract, and he found that twenty per cent. of a dose of ferratin introduced into the stomach of a dog subjected to a milk diet was absorbed.

According to M. Cloetta, the organic combination of iron with albuminoid matter is necessary in order to insure its absorption. For instance, two dogs were experimented upon as follows: Their food consisted of a soup made of starch, sugar, glucose, and distilled water. To the nourishment of the first dog a solution of iron chloride, representing sixty milligrams of iron, was added; to that of the second dog a solution of ferratin representing forty milligrammes of iron. The villosities of the dog to which ferratin had been given presented the characteristic action of the iron absorbed. The iron contained in the intestine of the other dog was not absorbed, and formed masses at the base of the villosities. The organic iron, combined with albuminoids, is evidently absorbed in the intestine, penetrates the chyle, and enters the circulation by the mesenteric veins.

Experiments made by Cloetta with new-born dogs demonstrated that the presence of iron salts in the food was not immaterial to the formation of hemoglobin; that there was no absorption of iron salts, and that the liver seemed to regulate absorption in the same way as it did glycogenesis.—*New York Med. Jour.*

LOCAL TREATMENT OF CHRONIC GASTRIC CATARRH.—Local treatment may be applied in any stage of chronic gastric catarrh; but it must be varied somewhat in the different stages. The grade of inflammation, its character and persistence, likewise may require some modification of the treatment.

First Stage.—During the incipiency of chronic gastritis, local treatment is not so essential except in bacterial cases, but is beneficial. It serves to modify the congestion when that is increased, and often allays dyspeptic symptoms even when they are more marked than usual. The use of warm water (105°) with bicarbonate of sodium (three per cent.) for washing out the stomach is frequently very valuable to remove the tenacious mucus usually adhering to the gastric mucous membrane, in this condition, and interfering with the proper mixing of peptic fluid with the food. The patient may drink a glassful of the solution before meals, or it may be introduced into the stomach through the tube. If the tube is used, the stomach should be filled before allowing any reflow. The cold douche with water at 80° to 60° is sometimes more grateful and helpful than the hot douche (110° to (125°). A continuous effect may be secured by using a double tube and permitting the inflow and outflow to progress simultaneously; but care should be taken to keep the stomach distended sufficiently to have the solution come in contact with the entire gastric surface. The soda solution dissolves the mucus and the stream washes it away. Weak soap-suds may be used with the tube for the same purpose. More satisfactory in many instances is the use of a solution of Hydrozone. A glassful (fl ʒ viij) of a two or three per cent. solution may be given half an hour before meals. If used as a douche with the tube a five or six per cent. solution is not too strong, and two quarts the minimum amount. These douchings may be given one to six or seven times a week, according to the requirements of the case, and are

frequently all the treatment this stage of chronic gastritis demands, except what changes are necessary in the diet.

Second Stage.—The inflammatory process is fully developed in the second stage, and while there may be weeks or months when there is little if any suffering, the treatment should be persistent. The cleansing of the gastric mucous membrane must be systematic and thorough. This is best accomplished with a solution of green soap or a five or eight per cent. solution of Hydrozone, introduced with the double tube. After first filling the stomach, inflowing and outflowing streams ought to remain about equal or the outflow may exceed the inflow, the distension of the stomach may be maintained by retarding the reflow when necessary. This process can be beneficially accomplished by driving the solution into the stomach under increased air pressure; but when the proper apparatus for this method is not at hand the siphoning method with the single tube does very well. For home treatment or when the tube cannot for any reason be used, a solution may be made for drinking. For this purpose a 2 or 3 per cent. solution of Hydrozone is prepared. The patient may take a glassful (8 oz.) half an hour before meal time. He should lie down at once, remain five minutes on the back, then turn on the right side where he must remain during the remainder of the half hour. While the patient is on the back the solution comes in contact with every portion of the gastric mucous membrane and turning to the right side facilitates the emptying of the stomach. By this process the offending mucus is dissolved and carried away and the organ is put into a proper condition to digest food. The use of Hydrozone has the additional advantage of checking the growth of the bacteria, and probably exhibits greater antiseptic properties than any other agent than can be used in the stomach with the same degree of safety. In obstinate cases this cleansing ought to precede every meal.

After the stomach is cleansed it should be treated with soothing, stimulating and healing applications. There are many preparations which can be so used, some of the best of which are glycerole of bismuth and eucalyptol, the essential oils and Glycozone. Boric acid in 2 or 3 per cent. solution as a wash with the tube is sometimes very valuable. The other agents

mentioned may be used with a nebulizer by means of which a vapor impregnated with the medicine can be passed into the stomach through a tube, the double tube being perferable. If it is not convenient to use a nebulizing apparatus, the glycerole mentioned, and especially Glycozone, may be administered by the mouth. In many cases, in fact, the later mode of administering these agents is more desirable. These remedies encourage healing and materially enhance the patient's prospects of recovery. This is especially true in bacterial cases. When Hydrozone has been given before meals as already suggested for cleansing purposes, Glycozone may be administered in teaspoonful doses after meals with very satisfactory results. This line of treatment is frequently so successful that cases are temporarily relieved and possibly often a cure effected, particularly if the general treatment has been judiciously carried out.

If, for any reason, Glycozone cannot be employed the essential oils may be used. The oils of anise, peppermint, cubebs and tar may be combined and used with a nebulizer as previously suggested. Although benefit may be derived from the administration of this combination, I prefer the Glycozone treatment. The use of hot water, 120° or more, and the employment of cold water, 80° to 40° F. may give very happy results in certain severe cases.

Third Stage.—The condition referred to here is one of atrophy. The functions of absorption and motion may be fairly well performed. The chief difficulty then is with the digestion of proteids. The local treatment has two objects, mainly, although a third is sometimes in mind. The first object is the removal of debris and foreign material. The second is the cleansing of the mucous membrane and the destruction of micro-organisms and their removal in order that the intestines may not receive bacterial products from the stomach. The third object sometime kept in view in the local treatment by douching, is a degree of stimulation of the functions of motion and absorption and the tonic effect to the gastric walls which follows those washings. The first object is accomplished by the use of sterilized water or a 3 per cent. solution of sodium bicarbonate. Either tube may be used. Thc second object is effected by douching the walls with a green soap solution or a solution of Hydrozone. The

latter agent in 2 per cent. solution as directed above gives very pleasing results. The third object may be secured by using hot or cold water for the douche.—*A Clinical Lecture of Prof. J. M. G. Carter, M.D., etc., of Chicago, in American Therapeutist.*

ELIGIBLE VASO-MOTOR STIMULANTS AND BLOOD-BUILDERS.—It is probable that no busy practitioner is doubtful as to the therapeutic value of mercury and arsenic. It is just as probable that every physician has frequently encountered grave difficulty in his attempt to administer these agents for a sufficient length of time or in proper quantities to produce their full therapeutic effect. Long before their remedial properties have had opportunity to exert themselves some form of stomachic disturbance or an exhausting diarrhea accompanied by profound mental depression have indicated their discontinuance for sufficient time to permit the patient to reëstablish such tone as would enable him to again "stand the treatment." This is especially true in its application to mercury, and equally true, though in a lesser degree, with reference to arsenic. That these metals have been rendered more easy of assimilation and their therapeutic value distinctly enhanced by skillful manipulation and combination, recent medical literature leaves little doubt.

In the preparation known as Arsenauro we have in solution a combination of the bromides of arsenic and gold, which is certainly an advance in pharmacy.

Mercauro, which is one of the same class, has, in addition to gold and arsenic, the bromide of mercury in solution.

According to Drs. Stucky, Lydston, Wight, Dumesnil, Ingersoll, Wade, Kennedy and others, these solutions are blood-builders and blood-makers, valuable nerve tonics and vaso-motor stimulants, and in the experience of several Mercauro has earned first place in the treatment of the later stages of syphilis, with its accompanying nerve tissue degeneration.—*Medical Times and Register.*

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N.Y., sole agents.

Editorial.

CENTENNIAL CALENDAR FOR JUNE.

In addition to the many general attractions offered to visitors to the Tennessee Centennial and International Exposition the following fixed dates for special features for the month have been arranged:

June 1. Tennessee Day.
Governor's Day.
1-5. National T. P. A. of America.
Grand Lodge Knights and Ladies of Honor.
2. Centennial Day.
Republican League of Tennessee Day.
State Convention Republican League of Tennessee.
Grand Army of the Republic, Tennessee Department.
Alabama and Tennessee Divisions of Sons of Veterans and Women's Relief Corps of Tennessee.
4. National T. P. A. Day.
5. Negro Day.
7. Gallatin and Sumner County Day.
8. State of Tennessee Master Plumbers' Association.
9. The Southern League of Master Plumbers' Association.
Knights and Ladies of Dixie.
Winter Wheat Millers' League Day.
10. Alabama Press Association Day. Arrive in Nashville.
Evansville, Indiana Day.
Illinois Day.
11. Ohio Day--President McKinley and Cabinet will arrive and attend.
12. Cincinnati Day.
14. Lebanon and Wilson County Day.
Fisk University Day.
15. Tennessee Press Association; W. H. Griffin, President, Union City, Tenn.; H. A. Hasslock, Secretary, Nashville, Tenn.
Kappa-Alpha Day.
Giles County Public School Day.
16. Y. M. C. A. Day.
17. Knoxville Day.
Tennessee Marble Day.
18-19. Texas Days.
21. England's Jubilee Day.
Kentucky Press Association Day.
21-22. Surviving Terry Texas Rangers; Jno. M. Claiborne, President, Rusk, Texas.
22-23-24. United Confederate Veterans; Gen. Gordon, Commanding General.
22-25. Colored Educational Congress.
22-24. New Orleans Washington Artilery Day.

23. North Carolina Day.
24. Confederate Day.
24-25. Mississippi Press Association.
25. Florida Day.
Peabody Normal College Day.
26. Franklin and Williamson County Day.
28. Franklin and Bowling Green (Kentucky) Day.
29. Columbia and Maury County Day.
Armour Drill Corps of Chicago.
30. Pulaski and Giles County Day.
30. and July 1-2. Phi Gamma Delta Fraternity.

ANNUAL MEETING OF THE TENNESSEE STATE MEDICAL SOCIETY.

The sixty-fourth annual session of the Medical Society of the State State of Tennessee began at 10 o'clock Tuesday, May 11, 1897, in the House of Representatives at the Capitol, with nearly two hundred members present.

Dr. S. S. Crockett, Chairman of the Local Committee of Arrangements, called the meeting to order, and introduced Bishop O. P. Fitzgerald, who invoked the blessing of the Almighty.

Dr. Crockett then said: "I take great pleasure in introducing Governor Robert L. Taylor, who will deliver the address of welcome."

Governor Taylor was in his happiest mood, and his address brought forth prolonged applause.

The response was by Dr. T. J. Happel, of Trenton.

Dr. W. G. Drake, of Chattanooga, then took the chair, saying he would not make a speech, as his time came later.

It was decided to hold three sessions a day except the first.

The Committee on Credentials reported the following new members: Drs. James C. Pryor, United States Navy; Charles L. Hill, of Briceville; F. S. McReady, of Petersburg; M. A. L. Enochs, of Flat Creek; Z. T. Hodge, of Gordonville; James H. Preston, of Vernon; Charles M. Roberts, of Whitville; C. C. Sullivan, of Waverly; George M. Bendett and J. M. Clarke, of Rockwood; Edwin C. Anderson, of Chattanooga; Enoch H. Jones, of Murfreesboro; Richard W. Griffin, of Tiptonville; W. D. Haggard, Jr., of Nashville; David R. Neil, of Nashville; Blackburn G. Tucker, of Nashville. All were accepted.

The privileges of the floor were extended to Dr. R. A. Wood, of Pittsburg, Pa.; Dr. J. D. S. Davis, of Birmingham; Dr. J. R. Coleman, of Murray, Ky.; and Dr. Lacy, of Bessemer, Ala.

Dr. C. R. Atchison, the Secretary, reported that four hundred copies of the Transactions of the last session had been printed and sent out, and that he had sent out 1,500 invitations to this session.

The programme was taken up, and several papers were read and discussed.

Adjourned at 1.30 p. m.; the members visiting the Centennial during the afternoon.

NIGHT SESSION.

The Society re-assembled in the Senate Chamber at 8 o'clock.

The name of Dr. W. J. Breeding, of Taylors, was presented and accepted for membership.

The annual address by the President was the first feature of the programme, and Vice-President W. F. Clary, of Bellbuckle, was called to the chair while the President delivered his address. The address was quite lengthy, but so replete with philosophic wisdom and delivered with such eloquence and grace that the time seemed short indeed, every one present being highly delighted and entertained.

The first paper to be read was "Typhoid Fever," by Dr. H. K. Egerton, of Lebanon; but as he was not present, the subject was set aside to await his arrival.

"Further Experience in Antiseptic Treatment of Typhoid Fever," by Dr. J. A. Crook, of Jackson, was next on the programme. Dr. Crook was also absent, and it was decided by a motion for his paper to be read by Dr. G. C. Savage, of Nashville. This subject was one of special interest, and all gave close attention.

Dr. W. F. Clary, of Bellbuckle, followed Dr. Savage. The subject of his paper was "Treatment of Typhoid Fever After the Method of Brand." Dr. Clary stated that he was very hoarse, and that Dr. D. J. Roberts had consented to read his paper.

Drs. J. W. Maddin, of Nashville; J. S. Nowlin, of Shelbyville; J. A. Witherspoon, of Nashville; Deering J. Roberts, of Nashville; T. J. Happel, of Trenton, and J. S. Cain, of Nashville, were called upon, and a long discussion resulted, Dr. Clary closing the argument.

The Society then adjourned until 9 a.m., next day.

MORNING SESSION—WEDNESDAY, MAY 11.

The State Medical Society reconvened in the Senate Chamber at 9 o'clock Wednesday morning, with a large attendance present.

The Treasurer's report was submitted as corrected by the Auditing Committee, and for the first time in the history of the Society showed a cash balance amounting to $14.37. The receipts were $563.78, and the disbursements $548.41.

The following resolution was submitted by Dr. G. B. Thornton, of Memphis, and was adopted:

"WHEREAS, It is desirable to have preserved the minutes and all official publications of this association, from its organization and first meeting in the city of Nashville in 1830, it is hereby

"*Resolved*, That the chair appoint a committee, one from each grand division of the State, to collect and bind in suitable volumes the official proceedings of this association from its first meeting, these volumes to be placed in the library of the State for future reference."

Drs. W. K. Sheddan, G. B. Thornton, and Duncan Eve were appointed by the president as the committee.

A paper on "Obstetric Antisepsis" was read by Dr. A. B. Ramsey, of McMinnville. Dr. G. A. McSwain, of Paris, read a paper on "Pregnant, Puerperal and Parturient Women, and was followed by Dr. F. S. McReady, of Petersburg on "Eclampsia," and Dr. J. S. Cain, of Nashville; subject, "Bovine Tuberculosis."

The Society then adjourned until 1.30 o'clock in the afternoon.

Afternoon Session.

At 1.30 o'clock the president opened the session, and there were probably 150 physicians present and the interest seemed increasing.

"Headache" was the first subject for discussion. A paper was read by Dr. Hazel Padgett, of Columbia, and the open discussion was participated in by several.

On account of the absence of Dr. J. B. Murfree, Jr., of Murfreesboro and Dr. J. T. Graham, of Booneville the next two subjects, "Acute Intestinal Infection in the Young, and Summer Diarrhœa in Children," were passed by and the subject "Shock" was taken up. Dr. H. R. Miller read an interesting paper on the subject, and after an open discussion closed with a few more remarks.

On motion, a five-minute recess was taken in order to allow all who had failed to register to do so at once, after which the president stated that as 3 o'clock was the time set for the business session, a vote would then be taken as to the next meeting place of the Society. Many thought a lively race would then follow with the various towns of the State, but only one city was put in nomination. Dr. J. A. Crook arose and in a neat speech asked that his native city of Jackson be chosen, and he assured the Society of a hospitable welcome when they came. He stated, to the amusement of the Society, that if they came to Jackson there would be no need of discussing a treatment for typhoid fever.

Several gentlemen arose and seconded the nomination of Jackson, and by a unanimous vote Jackson was chosen as the next meeting place. Nominations for new officers was then announced in order. The following were elected:

President, Dr. W. K. Powell, of Dancyville; Vice-President for West Tennessee, Dr. J. A. Crook, Jackson; Vice-President for East Tennessee, Dr. S. R. Miller; Vice-President for Middle Tennessee, Dr. D. J. Roberts, Nashville; Secretary, Dr. W. D. Haggard, Jr., Nashville; Treasurer, Dr. D. E. Nelson, Chattanooga.

The following committee report was then submitted and adopted:

"We, the undersigned committee appointed to consider the resolution of Dr. G. B. Thornton regarding the collection and preservation of the transactions of the State Medical Society, do recommend that the same be done, and the following be selected as the members of the committee

to perform that duty: Dr. J. Berrien Lindsley, of Nashville; Dr. B. B. Lenoir, of Lenoir City, and Dr. G. B. Thornton, of Memphis.

"W. K. SHEDDAN, *Chairman*,
"DUNCAN EVE,
"G. B. THORNTON."

Dr. W. D. Haggard asked that a time be set aside for an exhibition by Dr. Davis. His wish was granted.

Dr. T. J. Happel's paper on "Is the Medical Profession Doing Its Duty," was then read by him, and he presented some practical facts and appalling figures that resulted in the doctor's failure to do their real duties. He touched on hereditary diseases and stated how important it was for physicians to inform their patients in due time of their ailments. He concluded by saying:

"It is impossible to carry out needed reforms under a Republican Government. The aggregation of criminal classes allowing them to marry among themselves would soon solve the problem. They are the social lepers of the nation and should be treated as such.

"We lend no helping hand to accomplish by legislation, needed reforms in the sale of poisonous medicines and such drugs as morphine, cocaine, etc. We all, with perfect unanimity, admit the unrestricted sale of opium in its many forms evil, yet, as a profession we lend no aid to measures looking toward limiting the evil.

"If we would do our part in teaching the masses the great evils resulting from the excessive use of those drugs, there would be no difficulty in getting legislation to prohibit the sale of them except on written prescriptions of registered practitioners."

Then followed a lengthy and animated discussion on hereditary disease, in which many of the physicians got off the subject. There were various opinions in regard to the paper just read, and most everyone took a lively interest in the discussion. Among the physicians participating were Dr. J. A. Witherspoon, Dr. T. W. Menees, Dr. T. W. Gallion, Prof. Hazle Padgett, Dr. W. K. Sheddan, Dr. Y. L. Abernathy, Dr. R. W. Read, Dr. W. D. Haggard, Sr., the argument being closed by Dr. Happel. An adjournment was then taken until 7:30 o'clock.

NIGHT SESSION.

At 7.30 o'clock President Powell was greeted with another large assemblage of physicians.

Dr. T. J. Crofford, of Memphis, presented some specimens of ectopic gestation, which were quite remarkable.

The papers of Drs. Davis and Crofford were deferred until after the demonstration of the X rays by Dr. M. Goltman, of Memphis. This was a very remarkable and interesting spectacle, and elicited the most profound interest from the physicians and visitors. The Doctor preceded the demonstration by a review of the history of the Roetgen X ray, after which, by means of the fluoroscope placed before the X ray generated in

the vacuum tube, the members were allowed to see the bones in their own hands, spectacles in leather cases, coins in pocket-books, and pills in boxes.

Dr. John D. S. Davis, Professor of Surgery in the Birmingham Medical College, was invited to discuss some experimental work he had done upon the gall-bladder. The Doctor discussed the subject in the form of a lecture, and recited his experiments upon dogs and experience with gall-bladder disease to establish the proposition he made in this city last November, during the session of the Southern Surgical and Gynecological Association, that a cholecystotomy should never be done as a primary procedure.

Dr. Witherspoon moved that the address of Dr. Davis on "Surgery of the Gall Bladder" and the "Report of Cases of Ectopic Gestation" by Dr. Crofford be discussed.

Dr. W. D. Haggard, Jr., after referring to the valuable work of Dr. Davis, reported a case operated on the day before, with the assistance of Dr. Davis, in which a handful of gall stones were removed from the side of a woman who had a tumor there for three years. In speaking of Dr. Crofford's cases, he spoke of a different operation for ectopic gestation that he performed with success.

Dr. W. K. Sheddan also spoke, and Dr. Richard Douglas made an able and lengthy discussion of ectopic gestation, citing cases to illustrate his views.

Several others spoke upon the subject.

Dr. G. C. Savage read a paper on "Facts and Theories as to the Law of Direction."

At the conclusion of Dr. Savage's paper, adjournment until 9 o'clock next morning.

Morning Session—Thursday, May 13.

The Society reconvened at 9 o'clock, Dr. T. K. Powell presiding, and Dr. W. D. Haggard, Jr., at the Secretary's table.

Papers were read by Drs. William Orr, of Shelbyville; J. B. Cowan, Tullahoma; F. T. Smith, Chattanooga; A. B. Cook, Nashville; B. W. Stone, Nashville; and J. L. Jones, New Middleton.

Before adjournment for dinner, President Powell announced the appointment of the following delegates to attend the semi-centennial meeting of the American Medical Association, June 2, 3 and 4, 1897, in Philadelphia:

Drs. G. C. Savage, Nashville; J. M. Clack, Rockwood; J. A. Witherspoon, Nashville; Duncan Eve, Nashville; D. E. Nelson, Chattanooga; G. B. Thornton, Memphis; J. B. Cowan, Tullahoma; W. K. Sheddan, Williamsport; J. T. Happel, Trenton; W. D. Haggard, Jr., Nashville; W. B. Rogers and D. D. Saunders, Memphis; G. B. Gillespie, Covington; I. A. McSwain, Paris; C. S. Briggs, Nashville; G. T. Prince, Whitesides; T. K. Powell, Danceyville; and J. A. Crook, Jackson.

Afternoon Session.

The afternoon session convened at 2 o'clock, with one of the largest assemblages during the entire session.

The first address was that of Dr. G. P. Edwards on "Observations in Electro-Therapy." This paper being the last on the regular programme, Dr. Ramsey moved that in the matter of the remainder of the papers, which had been passed over on account of the unavoidable absence of their authors, simply the titles be called, and the papers be referred to the Committee on Publication. The motion prevailed.

A motion by Dr. Sheddan to remunerate the Secretary and Treasurer of the Society for their past efficient work to the extent of $50 each was unanimously passed, as was also an additional motion that G. E. Malsbury, of Cincinnati, who has officiated as stenographer for the past three sessions, be appointed official stenographer of the Tennessee Medical Society.

Dr. Omohundro read an interesting case from the *Journal of the American Medical Association*, which was the history of a suit for damages brought against T. A. Harris and W. C. Keever, of Parkersburg, W. Va., for alleged malpractice.

This reading was followed by a motion that a committee of three be appointed to wait on the State Legislature at its next session and recommend that a bill be passed to protect physicians of high professional standing against indiscriminate suits for malpractice. After some discussion, the Chair appointed Drs. Cain, Maddin and Atchison.

Dr. Krauss, of Memphis, then read the most important paper of the session. It was received with rapt attention, and its conclusion was greeted with the applause it deserved. The unanimous verdict of the Society was that Dr. Krauss' paper and its discussion by Dr. Galtman, of Memphis, were the most instructive and original that had been heard during the session. The thesis on "The Pathology of Malarial Hematuria" is the embodiment of a minute investigation of the subject by the above-mentioned physicians of Memphis, and its contents promise a revelation to the medical world.

A recess of one hour was then taken to enable the remainder of the papers to be read without violating parliamentary custom, and during the recess Dr. Sinclair's paper on the "Eye," with discussions by Drs. Smith and Price; Dr. Fort's on the "Antitoxine Treatment of Diphtheria," and the opposite by Dr. Abernathy, were read and discussed. These papers provoked much comment and interest, and Dr. Abernathy, in his humorous opposition argument, opened the way for an expression of diverse opinions on the treatment of diphtheria by the new antitoxine method.

At the conclusion of the discussions, the new President, Dr. Powell, declared the sixty-fourth session of the State Medical Society adjourned till the meeting next year at Jackson.

Dr. Happel was requested by the Dean of the University of Tennes-

see to announce that the Roentgen X ray would be on exhibition at the Centennial Exposition, and would be at the service of the local physicians.

MIDDLE TENNESSEE MEDICAL SOCIETY.—The sixth regular meeting of this Association will be held in McMinnville on the 17th and 18th of June.

The Association will be called to order by the President, Dr. Alfred Jones, at 10.30 o'clock a. m. The railroads will give reduced rates on the certificate plan.

The following list of papers have been promised, with able gentlemen to open discussion:

"Irregular Fevers, with Report of Cases," by Dr. W. A. McCord, Lewisburg; "Hydrotheraphy in Typhoid," by Dr. Stephen Thach, Decherd; "Tubercular Peritonitis," by Dr. Frank Reagor, Flat Creek; "Gastric Ulcer," by Dr. J. W. Grisard, Winchester; "Operative Indications in Appendicitis," by Dr. C. S. Briggs, Nashville; "Medicinal or Non-Surgical Treatment of Appendicitis," by Dr. J. M. Anderson, Fayetteville; "The Prevention of Mortality in Children During Pregnancy and Immediately Thereafter," by Dr. J. H. Wilkes, Columbia; "The Use and Abuse of Antipyretics," by Dr. J. H. White, Bell Buckle; "Venesection," by Dr. J. B. Murfree, Murfreesboro; "Antepartum Hemorrhage," by Dr. Solan Duggan, Unionville; "Erysipelas," by Dr. John Sutton, Hawthorne; a paper by Dr. J. S. Cain, Nashville; "Chloroform Anesthesia," by Dr. C. C. Abernathy, Pulaski; "Nasal Catarrh," by Dr. E. H. Jones, Murfreesboro; "Extra Uterine Gestation and its Treatment," by Dr. J. W. McGannon, Nashville; "Chronic Suppurative Otitis Media," by Dr. G. C. Savage, Nashville; a paper by Dr. J. B. Cowan; "Menorrhagia," by Dr. S. T. Hardison, Lewisburg; "Iritis," by Dr. T. H. Wood, Nashville; "Milk," by Dr. Deering J. Roberts; "Cholera Infantum." by Dr. G. W. Moody, Shelbyville.

SPURIOUS COCA WINES: The *British Medical Journal*, in its issue for January 23d, and again in that for February 6th, speaks of the dangers that attend the popular use of so-called coca wine—that is, some kind of wine in which a salt of cocaine is dissolved. For the most part, the wine is of poor quality, but sweetened and highly fortified with rectified spirit. The amount of cocaine contained in many of these products is variable, too, and in prescribing them one really does not know what doses of that drug he is ordering. Moreover, the contention seems reasonable that the tonic and stimulant virtues of a real wine of coca—such, for example, as the well-known Vin Mariani—do not depend altogether upon the cocaine contained in it.—*New York Medical Journal*, March 20, 1897.

MAILED FREE TO PHYSICIANS: A reprint of how I treat respiratory diseases with antiseptics, viz.: Catarrh, La Grippe, Asthma, Throat, Bronchial and Lung Diseases. The medicines can be carried to parts affected. Over 800 patients treated and ninety per cent. successful. Address, R. C. COTTRINGHAM, M.D., 513 Reade St., Moberly, Mo.

IF YOU HAVE any troublesome cases of epilepsy write to The Tilden Co., 1718 Olive Street, St. Louis, for literature concerning their Hydrocyanate of Iron. It has some remarkably strong endorsements.

IN dyspepsia and all wasting diseases where there is deranged digestion, I have found Seng of inestimable value.

C. W. ISAMINGER, M.D.

Rogers City, Mich.

IT IS my experience that the ideal sedative, the preparation that is the most potent in allaying the restlessness of typhoid fever, pneumonia and other acute diseases, is that well-known, chemically pure preparation, Peacock's Bromides. It is head and shoulders over any mixture of commercial bromides, therefore I use it; it gives the best results. I also find it to be a sterling remedy in the nervousness of rum drinkers. The restlessness and nervousness attendant in acute diseases can usually be controlled by a few half-teaspoonful doses. It is well worthy of a place in the armamentarium of every physician.

H. G. REEMSNYDER, M.D.

Ephrata, Pa.

TONGALINE: "This product of pharmacy has developed, therapeutically, into lines of pathology which have not been suggested in the original manifesto as given out by its authors. We have received reports of its satisfactory employment in two very important cases—one of chronic catarrh, by insufflation; and another in the excitement of nerve function in paresis. The latter case was very striking, seeming to respond promptly to the internal administration of the remedy. We look for great results from this preparation in the near future."—*St. Louis Clinique*, March, 1897.

WANTED: To correspond with competent physicians who desire a good location for the practice of medicine. Address with stamp, F. M. SHIPPEY, Waterloo, Iowa.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Reviews and Book Notices.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Vol. IX.—Diseases of the Digestive Organs. WILLIAM WOOD & Co., New York: 1897.

Although Vol. X. was issued prior to this 9th volume of this grand International Encyclopedia of Modern Medical Science, it fully maintains the high order of merit won by its predecessors.

Local Diseases of the Mouth, by Johann Mikulicz and Werner Kummel, of Breslau, occupy its first ninety-four pages; Diseases of the Intestines (excluding infectious diseases, parasites, and hernia), by that prince of writers, especially as regards digestive diseases, C. A. Ewald, of Berlin, fill the next 179 pages. The important subject of Hernia, in the hands of Virgil P. Gibney and John B. Walker, of New York, is ably considered in the next seventy-seven pages. The excellent illustrations in this section are an important feature, and so it goes on throughout the book. Diseases of the Spleen, by Alfred Stengel, of Philadelphia; Diseases of the Liver, by Mariano Semmola and Carlo Giofredi, of Naples; Diseases of the Gall-bladder, by John B. Murphy, of Chicago; Movable Kidney, by Kendal Franks, of far-away Johannesburg, South Africa Republic, completes this running summary of this rich, intellectual and scientific repast.

Pressure upon our space at this time makes this attempt at a review far briefer than the merits of this work would justify—but we simply close it by saying this volume, as well as its predecessors, need only to be seen to be appreciated.

lived three years upon three to five pints of milk daily, and of another patient in the wards of Jefferson Medical College Hospital afflicted with carcinoma of the esophagus who thrived upon three pints of milk daily during a period of thirteen months.

Notwithstanding the popularity of milk as a food and its adaptability to all the needs of the system, it is the easiest and most frequently adulterated and contaminated of all foods. Adulterated milk, contaminated milk, and milk from diseased animals have long been recognized as one of the most potent causes of disease. It is to cow's milk as a disease-producing agent that I desire briefly to call your attention, at the same time disclaiming any attempt at originality, but hoping by a recital of "twice-told" facts to suggest anew the dangers that lurk in the innocent-looking fluid.

Pure, uncontaminated cow's milk of good quality, according to Tardien, of the French Commission, is composed of eighty-one parts water and thirteen parts total solids. Of the solids, the casein, extractive matters and salts compose four parts, the butter four parts, and the lactin five parts. When perfectly fresh, cow's milk is usually neutral in reaction, or it may be slightly alkaline. After a short time, especially in the summer, it becomes acid by a process of fermentation, in which the lactin is converted into lactic acid and the casein coagulates.

The absorbent properties of milk are familiar to the housewife, for when placed in a refrigerator or box by the side of volatile substances it soon partakes of their qualities; as, for instance, if it is placed in a cooler with cantaloupes or bananas, or the cold vegetables from the dining table, it quickly becomes so impregnated with their odors and flavors as to be rendered very unpalatable. So in a similar manner it may become infected with the poison and germs of infectious diseases, and be the carrier of those diseases to innocent persons in remote localities.

Milk is a medium in which all micro-organisms multiply with great rapidity, and the great number that are found depend not so much upon the extent of the original contact as upon the length of time and conditions under which the milk is kept. Milk, as it exists in the breast of the healthy woman or in the udder of the perfectly healthy cow, is sterile. Immediately

after leaving the udder of the cow it is liable to contamination, and by the time it reaches the consumer it is often teeming with myriads of living, active germs. These enter the milk in the dirt and dust of the atmospere, and by means of the uncleanly hands of the milkman and the more uncleanly teats of the cow. Hairs and dried fecal matter, particles of dust and dirt from the hairy hide of the cow and the walls and stalls of the barn, are all sources of contamination that are prolific of both pathogenic and non-pathogenic micro-organisms.

Impure water is one of the most frequent sources of pollution. Aside from the adulteration of the milk with water from an impure well or spring, the milk pails and cans are washed in it, and the milk poured into open vessels is placed in the water of these springs or streams to keep it cool and preserve its sweetness.

Another source of pollution comes through the food and drink. When the cow is forced to eat decaying vegetable matter, the swill and refuse from kitchens, and to drink the water from stagnant pools, or the water from streams that flow through soil that is reeking with filth and the excreta from man and beast, it cannot be doubted that the milk from these animals is impure.

Milk may be contaminated with the germs of infectious diseases, the poison coming from the person of the milkman himself or from some member of his household.

There is reported very recently from East Orange, New Jersey, an epidemic of scarlet fever in which the medium of distribution has been traced to the milk. Dr. Winthrop D. Mitchell, the health officer in charge, in investigating the cause of the epidemic, discovered that in all sixteen families afflicted had been supplied with milk from the same milkman. Further inquiry developed the fact that the son of this milkman had been recently attacked with scarlet fever, and while convalescent had been about the barnyard where the milking was done, and had, in all probability, assisted. Scales of desquamating epidermis dropping from the hands and body of the lad into the milk had been the means of carrying a dread contagion to innocent families.

Sir Charles Cameron, the Medical Officer of Health of

Dublin, in reporting two cases of enteric fever, says: "In May, 1896, the two daughters of the owners of a milk-shop in Meath Street were ill with enteric fever. I visited the place and had the children at once removed and the milk destroyed. Upon inquiry I found that the milk was sold over the counter, except in a few instances, and that the purchasers were poor people whose residences were not known. The business was a small one. I succeeded in ascertaining that fourteen persons who had been supplied with milk from this dairy were suffering with enteric fever. The cows which supplied the milk were out on pasture. The water in the dairy was pure. How did the milk become infected? Most certainly from absorbing the exhalations from the excreta of the two girls who were ill in a communicating room.

There prevails in the malarious districts of the South the belief that the drinking of milk causes malaria, and, indeed, there are reasonable grounds for such a prejudice. It is a common custom to pour the milk that is taken from the cows in the evening into broad open vessels, and allowing it to remain exposed in the open air during the night for use at the morning meal. It is reasonable to suppose that milk thus exposed will absorb enough of the malarial poison that is so rife at night in many Southern localities to produce sickness.

The lives and health of young children and infants appeal more than all else for a wholesome, nutritious, uncontaminated and undiluted milk. Children form at least one-third of every physician's patients, and so severe are their diseases that one in five die within a year after birth, and one in three within two years. Cholera-infantum, diarrhœa, and all disorders of the intestinal tract which are so fatal to children during their first and second summers, are due, in most instances, to an improper diet. Bottle-fed children are often given milk that is uncooked, adulterated with impure water, and vitiated by the presence and activity of countless germs. Is it surprising that they soon sicken and die?

Tubercular phthisis is the most prevalent disease among cows, and as about one-seventh of all deaths are from tuberculosis it is important to know to what extent the disease is transmissible from beast to man. The intimate relation existing between the

cow and the human family makes it possible for the contagion of this frightful disease to be communicated from one to the other. Some investigators assert that the only people who are free from tuberculosis are those who do not use milk and have not domesticated the cow. The danger from the meat of tuberculous cattle is lessened by cooking, but milk is usually consumed raw without any attempt at sterilization. Tuberculosis among cattle seems not to be confined to any locality or country, but it is widely prevalent and extremely fatal. It is estimated that about twenty-five per cent. of all cattle in the United States are tuberculous. In 1895, in a report to the Massachusetts Society for the Promotion of Agriculture, Dr. Ernst gives a summary of some investigations which he had been making, as follows: "In the practice of thirty-nine veterinarians, representing seventeen States, there occurred within one year 547 cases of tuberculosis and 242 suspicious cases, a total of 789 among 165 herds, containing in round numbers 3,000 animals. That is, herds where tuberculosis existed about eighteen per cent. were diseased and eight per cent. suspicious, a total of twenty-six per cent." Dr. Ernst, in compiling this same report, sent communications to 2,000 prominent physicians and veterinarians from all sections of the country asking for reports of actual cases of tuberculosis in their own experience where the source of infection could be traced to the milk supply. From the replies received he draws the following conclusions:

"1. While the transmission of tuberculosis by milk is probably not the most important means by which the disease is propagated, it is something to be guarded against most carefully.

"2. The possibility of milk from tuberculous udders containing the infectious element is undeniable.

"3. With the evidence here presented it is equally undeniable that milk from diseased cows, with no appreciable lesion of the udder may, and not infrequently does, contain the bacillus of the disease.

"4. Therefore, all such milk should be condemned for food."

Dr. E. O. Shakespeare, who has given the subject much thought and attention, says: "The existence of tuberculosis in the first years of life may be fairly attributed, in the majority of instances, to the consumption of milk infected with the bacil-

lus tuberculosis." He calculates that one-fifth of all deaths among children feeding upon milk is from tuberculosis, the trouble originating in some part of the digestive tract.

In seeking to correct the evils that result from an impure milk supply, attention should first be directed to the animal which gives the milk. Good, wholesome food and clean, comfortable stables and surroundings must be provided. The cow must be watched closely for the first appearance of tuberculosis. Other diseases must be guarded against, whether systemic or local; and if the cow is not in good condition physically, she must be sacrificed. Cows cannot stand close confinement, the lack of exercise predisposing to tuberculosis. Free access must be had to an abundant supply of pure, fresh water.

The next consideration is the care of milk. All persons connected in any way with the handling of the milk must be scrupulously neat as to person and habits, and, above all, must be free from any contagious or infectious disease. The vessels and utensils used in the dairy work must be kept bright, fresh, and untainted.

The inspection of dairies and cows is becoming a necessity, so much a necessity that public opinion is demanding that State laws be enacted to control the milk traffic. Milk inspectors under control of the State should be scientific men, and their decisions should be enforced by a strict code of laws.

Notwithstanding all precautions, the milk may still be infected. Sterilization is the safest method of rendering the milk pure and free from all micro-organisms. That which is given to infants and invalids should always be sterilized by boiling. Dr. Jacobs says in this connection: "Virtually sterilization by boiling has been practiced by me for forty years, and has been taught by me these thirty-five years both in lectures and in books and in essays. I have always urged that safety increases with the number of boilings."

Dr. Freeman, in an article upon the subject in the *New York Medical Record* of March, 1896, gives the following valuable suggestions:

"1. Whenever a case of communicable infectious disease is reported inquiry should be made into the source of the milk supply.

"2. Milk traffic should be separated from dwelling-houses. The dairy building should be at least one hundred feet from either the house, barn or privy, and should have a pure water supply of its own.

"3. It should be unlawful for any person who has come in contact with a sick person to enter the dairy building or barn, or to handle the milk.

"4. All men connected with the milk traffic should be compelled to notify the authorities of the outbreak of any disease in their respective abodes, and to abstain from work until danger is passed.

"5. Cities should accept milk only from dairies that are regularly inspected, and where all cows have been tested with tuberculin and those diseased have been killed."

PRESENCE OF ALBUMEN IN THE URINE NOT ALWAYS INDICATIVE OF KIDNEY DISEASE.—Dr. J. Hudley Schall, of New York, made urinary analysis of five hundred and ten subjects, and recorded thirty-four specimens which contained albumen with no microscopical evidences of kidney lesion.

The conditions in which the albumen was found are as follows:

Neurasthenia, six; epilepsy, five; dilatation of the stomach, two; morphine habit, four; obesity, eight; mal-assimilation in children, four; after laparotomy, five.

Bouchard has seen albumen twenty-six times in one hundred cases of obesity, fifty-eight times in one hundred cases of gout, and thirty-three times in one hundred cases of diabetes.

Therefore, when traces of albumen are found in the urine it should not be taken as a positive proof of the existence of nephritis, until it is determined by repeated, diligent, microscopical research that evidences of renal disturbances are absent.

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Selections.

FORMALDEHYDE.—The gaseous body known as formaldehyde, formyl, or formol, has been sufficiently studied in the laboratory to indicate that it is a very valuable addition to our practical medicaments. Owing to the efforts of an enterprising firm of pharmaceutical chemists it is chiefly known by the profession as formalin. Formalin is, however, an aqueous 40 per cent. solution of formaldehyde, protected by a trade-mark name, and, therefore, loaded with all the excess of price, etc., which are of necessity associated with proprietary remedies. We know of no reason, however, why doctor or patient should pay this tax; and as the demand grows various solutions of formaldehyde will be put upon the market. Indeed, under the name of formaldehyde, Merck & Co. to-day sell an aqueous solution at the rate of 75 cents a pound, including the bottle; the corresponding price of formalin being 85 cents a pound, also including package; so that by purchasing the solution of Merck, there is a saving of over 12 per cent. For the purposes of calculation and production of strength a 50-per-cent. solution would be preferable, but it appears not to be permanent, becoming after a time turbid.

As long ago as 1888, Trillat discovered the germicidal powers of formaldehyde, and in a tabulated statement of the results obtained by numerous observers, Marion in 1895 showed there was a widely founded consensus of opinion that 1 part in 20,000 of the gas would kill most bacteria if the contact were prolonged. Most observers agree in stating that the germicidal power of formaldehyde is equivalent to that of corrosive sublimate, but later reports (as those of Walter, made in 1896) indicate that while it is many times stronger than carbolic acid it is inferior in strength to corrosive sublimate; and that a contact of one hour is necessary for the destruction of all pathogenetic spores by its 1-per-cent. solution. A very important observation is that of Aronson

and Burkhard, according to whose experiments this substance is not merely germicidal but has the power of stripping the toxins of diphtheria, of tetanus, and probably of other diseases of their poisonous powers.

The action of the drug upon the higher animals is comparatively feeble. Trillat states that sixty-six cubic centimetres of it per kilogramme are not fatal to the guinea-pig, although the urine passed by the poisoned animals is incapable of putrefaction; while no pronounced symptoms were produced in the rabbit by the injection of thirty-eight centigrammes per kilogramme. According to Mosso and Paoletti, fifty cubic centimeters per kilogramme injected hypodermically into the dog caused progressive poisoning, with fall of temperature and death after many days. The same amount given by the stomach produced rapid effects, with violent convulsions, general rigidity, salivation, stupor, unconsciousness, and death. A curious fact was noted, namely, that the drug was more poisonous when taken by the stomach than when taken hypodermically. This is evidently connected with its intense irritant properties. It is probable that it causes a severe gastro-enteritis; and it is possible, especially as deep eschars have been noted following the hypodermic injections, that when it is injected into the cellular tissue the local effects may interfere with absorption. Small doses have been found by Mosso and Paoletti to increase the blood-pressure, probably causing peripheral contraction of the arteries, while the large doses depress the circulation, and so act upon the blood that it coagulates with the separation of a dark-red serum.

The gas formaldehyde is exceedingly irritant, and it has been noted by Mosso and Paoletti that free inhalation is liable to produce severe pulmonary inflammation, ending it may be fatally.

Thus far formaldehyde has been used in practical medicine; chiefly first, as a preservative; second, as a germicide and disinfectant. In the anatomical laboratory it has been largely employed, and is, we believe, highly considered by most anatomists. Dr. Holmes, the University anatomical demonstrator, informs us, however, that a 3-per-cent. solution will not keep bodies unless they are completely immersed in it; parts floating above the liquid rapidly drying and being destroyed by mould. Also, that the brain in its interior softens and putrefies in such solu-

tion. According to Professor Orth, the addition of 10 per cent. of a 40-per-cent. solution of formaldehyde to 100 parts of Müller's solution greatly increases the preserving and hardening action of that solution. As, however, the compound solution begins to decompose in two days after its mixing it must be made freshly at the time of using.

The chief interest to the general profession, however, of formaldehyde centres at present in its powers as a germicide and disinfectant, and it looks as though it would, for all ordinary purposes of the hospital and sick-room, replace other substances. Hitherto there has been no practical method known of disinfecting apartments. A peculiarity of the gas formaldehyde is its power of penetrating not only animal tissues, but almost all organic substances, so that Van Ermengen and Sugg, in 1895, demonstrated in an elaborate series of experiments that it is possible to sterilize books by means of formaldehyde in an approximate quantity of five cubic centimetres to one litre of air; while in our own university laboratory, Horton, in 1896, showed that books infected with various pathogenetic germs could be disinfected by being shut up for fifteen minutes in an atmosphere containing the vapor of commercial formalin, one cubic centimetre of the formalin to 300 cubic centimetres or less of air. The method of Trillat, however, is without doubt greatly superior to evaporation or pulverization of the solution of formaldehyde. It consists in the use of the formaldehyde directly after its production by the passage of the vapors of methylic alcohol over red-hot metal. Employing a very ingenious apparatus devised by himself, Trillat proved that it was possible to completely disinfect rooms and the furniture contained therein by the consumption during six hours of from four to six litres of methylic alcohol for each 300 cubic metres of the room.

In the very recent (January, 1897) report of an elaborate series of experiments, Dr. J. J. Kinyoun, of the United States Marine Service, has confirmed all the statements of Trillat; and has further shown that none of the ordinary fabrics are injured by the gas, which is entirely capable of completely disinfecting curtains, carpets, clothing, bed-covering, and the minor forms of furniture, although it is doubtful whether heavy upholstered furniture, such as sofas and mattresses, can in their interior be

thoroughly disinfected. Nevertheless he did succeed in killing germs underneath ten layers of blankets.

There is at present offered for sale in the markets of the United States several forms of formaldehyde lamps, which we believe are all adaptations of the Trillat system, and are probably all of them efficient. We have known influenza apparently put an end to in a house where cases were continually recurring by its use; and the time seems not far distant when some such apparatus will be owned by every physician and used always in private practice where there has been germ-disease. The formaldehyde is so irritating that no one can stay in the room during the disinfection, but the apparatus is automatic and can be left to itself. Rooms can undoubtedly be disinfected by pulverizing in them with steam atomizers formalin or other solution of formaldehyde. There is, however, no reason for believing that the results obtained with formalin are better than those obtained with the gas formaldehyde, probably they are not as good. The expense with formalin is very many times greater than with formaldehyde. Thirty-two grammes of methylic alcohol theoretically should yield thirty grammes of liquid formaldehyde, as that compound exists under the influence of intense cold or under pressure. This amount of the liquid formaldehyde at ordinary pressure and a temperature of 60° F. should make 23.4 litres of the gas formaldehyde, the form in which the substance usually exists. Calculating this out it will be found that one pound of methylic alcohol should yield 355 litres of formaldehyde gas, or about 400 quarts or about 100 gallons. As pure methylic alcohol is listed by Merck at $1.09 a pound, theoretically there should be obtained for $1.09 as much of the vapor as exists in 250 gallons of formalin, a substance listed at 85 cents a pound. Even supposing that 30 per cent. of the methylic alcohol is wasted in the practical making of the formaldehyde, it is plain that the cost of the vapor is many times less than of a corresponding amount of formalin.

Formaldehyde has not as yet been fully tested in practical surgery, but there is sufficient knowledge to indicate that it may prove to be the best of the known germicides. The taste of it and the irritant quality of the solution, along with the feebleness of its toxic properties, make serious accidental poisoning by it

very improbable; and also make still more improbable, practically impossible, any fatal results paralled to those which have been so frequently produced by the surgeon when by the too free use of corrosive sublimate or of carbolic acid he has caused the death of the unfortunate patient; a result, in our opinion, which has been far more frequent than is generally admitted.

It would appear, also, that formalin is not only a germicide, but will so act upon various organic materials as to remove bad odors; at least, according to Walter, a 1-per-cent. solution will almost immediately and entirely deodorize feces. For the cleansing of vessels in the anatomical laboratory the ½-per-cent. solution of formaldehyde suffices, but for most purposes in the clinical amphitheatre the 1-per-cent. solution may be used. According to Walter, washing the hands with it and afterwards with alcohol renders them completely antiseptic, while it does not stain and appears not to irritate more than the other antiseptic solutions used. It is stated that it does not in any way affect instruments, so that its use is superior to the method of boiling, as commonly practiced, because it leaves the edges of the knives undulled. We are also informed by surgeons that it affords a very efficient means of preparing catgut.

It seems to us probable that by the use of the gas itself many of the tedious procedures at present connected with heating in the preparation of surgical dressings may be avoided. All that would probably be necessary to do would be to connect the nozzle of a formaldehyde-forming lamp with the copper or tin vessel containing the dressings, so as to allow a current of the vapor to pass freely through in order to completely sterilize the dressing. Experiments are necessary, however, to show how far what seems probable *a priori* would endure in practice.

There appears to be little doubt as to the great value of formaldehyde as a local application, although its full powers have as yet been scarcely made out, while there appears to be no danger of poisoning by it, although its solution, if used too strong, is liable to produce excessive irritation of the sound tissues. In the University Hospital, as well as in the Presbyterian Hospital and in private practice, Professor Willard has used formaldehyde in all sorts of wounds, in carbuncles, and in various infected sores. For washing out and purifying an infected

wound he employs a 2-per-cent. solution. For a continuous local application, or for free irrigation, a quarter of the 1-per-cent. solution; and while the effects upon suppuration and the general evidences of infection have been very pronounced in no case has there been any local irritation. Professor von Winckel, of Berlin, reported to the Gynecological Society of that city that he had found the agent extremely effective in gonorrhœal vaginitis and other infective diseases of the female genitals; and that while a 4-per-cent. solution of formaldehyde could often be painted with great and immediate advantage upon the cervix or other diseased part, 1 part in 10,000 is effective by the method of irrigation. It is very probable that strong solutions of formaldehyde will be found to be a very valuable remedy in the treatment of chancroids, poisoned wounds, etc. Of course, these strong solutions should be used at first tentatively, and always as though they were mild caustics.

A suggestion which we throw out for the testing of surgeons is whether it be not possible by means of the simple formaldehyde lamp to immediately disinfect wounds by allowing the vapors of the formaldehyde to be discharged for a few moments into the wound. The penetrating character of these vapors is such that *a priori*, at least, it appears probable that they would penetrate into the recesses of the wound much better than would a liquid solution. In bad cases of peritonitis, with the whole abdominal surfaces infected, it is notorious that laparotomy, as though frequently practiced, is almost invariably followed by death; but here again the possibilities of rapid disinfection and purification by means of the gaseous and seemingly scarcely toxic vapor appear to open out a possible avenue of safety. The momentary irritation of the peritoneum would probably not be severe enough to create serious shock; while our present knowledge indicates that it would interfere with rather than increase septic absorption.—*Prof. H. C. Wood, M. D., LL.D., in University Medical Magazine.*

Case of Tuberculosis Cured by Cancrum Oris.—Miss P., of Abingdon, Va., was brought to my private hospital November 9, 1895. She had a hacking cough, enlargement of the

glands of the neck, and consolidation of the apex of one lung. I diagnosed phthisis pulmonalis, prescibed constitutional remedies, and advised her being taken to some more suitable climate for the winter.

Before she could make arrangements to leave the hospital she had a severe chill, followed by high fever and a very sore throat. In a few days she developed a typical case of noma, or cancrum oris. The disease attacked the left cheek, and when the slough separated an opening was left as large as a silver dollar, exposing the teeth and rendering feeding difficult. There was high fever, typhoidal delirium and great prostration.

The wound was cauterized and disinfected, and heroic measures used to feed and stimulate the patient, but the symptoms grew worse and little hope of recovery was given to the relatives.

Finally, as a last resort, I began the use of Protonuclein, giving the tablets internally and dusting the powder on the wound. An immediate improvement followed, and after a long and trying convalesence the patient was able to return home.

A year later she returned to the hospital to have a plastic operation done to lessen the deformity of the scar, and when she first entered my office I scarcely recognized the healthy, vigorous woman as my former tuberculous patient. The enlarged cervical glands had disappeared, her lungs were clear, her cough was gone. She had been cured of tuberculosis by the attack of cancrum oris. I have no explanation to offer for the result, but trust the clinical fact may prove of interest to the pathologist.—*Hunter McGuire, M.D., LL.D., in Bi-Monthly Bulletin of the University College of Medicine.*

ANENT SO-CALLED CHOLAGOGUES.—Bicarbonate of sodium, chloride of sodium, sulphate of sodium, etc., have no true cholagogue action.

Gamboge, jalap, aloes, scammony, senna, are drastic substances, have no assured cholagogue action, and often diminish biliary secretion.

Alcohol and olive oil diminish biliary secretion more often than they increase it.

Atropine and pilocarpine invariably diminish biliary secretion.

Acetanilid, caffeine, santonin, etc., are of doubtful action. The substances truly cholagogue are salicylate of sodium, calomel, and bile.—*Ber. Klin. Wochenchrift.*

EXPECTORANT MIXTURE FOR CHRONIC BRONCHITIS—

℞ Chloride of Ammonium..... ℥ iss.
Tinct. Hyocyamus.. .... ℥ iv.
Wine of Ipecac ..... ℥ iss.
Syr. Hypophosphites Comp. (Fellows) ..... ℥ i.
Aqua Ad ..... ℥ iv.
Sig: Two teaspoonfuls every four hours.

COMPLETE RETROFLEXION OF THE PREGNANT UTERUS AT TERM; OBSTRUCTED LABOR; TOTAL ABDOMINAL HYSTERECTOMY.—Varnier and Delbet report a remarkable case of fibroma complicating pregnancy and retroflexion (Annales de Gynecologie, Feb., 1897.) The patient had been married for twenty-three years, and had not been pregnant. The form of the tumor was such that a positive diagnosis could not be made. Pregnancy evidently existed, but the position of the child and the shape and size of the uterus were abnormal. On opening the abdomen it was found that the uterus was very strongly retroflexed into the pelvic cavity beneath the sacrum. It was raised with great difficulty, incised, and the child removed, the uterus being then completely extirpated. A curious feature of this case lay in the fact that the patient was entirely ignorant of the presence of the fibroma which blocked the pelvis, and also of the abnormal position of the uterus. She had no symptoms pointing to these conditions.—*American Journal of the Medical Sciences.*

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* WANTED: To correspond with competent physicians who desire a good location for the practice of medicine. Address with stamp, F. M. SHIPPEY, Waterloo, Iowa.

MALARIAL HEMATURIA.—J. W. Meek (New Orleans Medical and Surgical Journal) concluded an article on this subject with the following recommendations for treatment:

1. Give hyposulphite of sodium in drachm doses every two hours until the patient is thoroughly purged, then continue in smaller doses until the system is saturated with it.

2. Give morphine and atropine, hypodermically, sufficient to quiet stomach; also blister the epigastrium if necessary.

3. Give an abundance of water to wash the coagula that must necessarily accumulate in the urinary tubules after a hemorrhage.

Hot water or hot lemonade is frequently better borne by the stomach than cold. Cupping over the loins is also to be recommended.

4. The diet should be mild. Fresh buttermilk is usually well borne by the stomach, and is also a mild diuretic, and I have come to rely on it as an article of diet in this as in many other diseases.

5. Keep the patient in a strictly recumbent posture.

I give hyposulphite of sodium in this affection for the following reasons:

(*a*) It is a stimulant to the hepatic secretion, causing in large doses abundant biliary secretion, and is also a valuable intestinal antiseptic.

(*b*) I believe free sulphurous acid is disengaged in the blood, and that this agent is an antizymotic to such an extent that it destroys the micro-organism which is the real cause of the disease, and thus arrested the process of corpuscular disintegration.

HYDROGEN DIOXIDE IN THE TREATMENT OF EPISTAXIS.—Gillette (*New York Medical Journal*) recommends the use of hydrogen dioxide in cases of bleeding at the nose. He uses a teaspoonful or more in full strength, with an ordinary syringe. Relief is obtained immediately. In operations in the nasal cavity, when bleeding obscures the vision, inject hydrogen dioxide. Ask the patient to blow the nose, and the field is clear again.—*Southern Medical Record.*

SPURIOUS COCA WINES.—The *British Medical Journal*, in its issue for January 23rd, and again in that for February 6th, speaks of the dangers that attend the popular use of the so-called coca wine—that is, some kind of wine in which a salt of cocaine

is dissolved. For the most part, the wine is of poor quality, but sweetened and highly fortified with rectified spirit. The amount of cocaine contained in many of these products is variable, too, and in prescribing them one really does not know what doses of that drug he is ordering. Moreover, the contention seems reasonable that the tonic and stimulant virtues of a real wine of coca—such, for example, as the well-known Vin Mariani—do not depend altogether upon the cocaine contained in it.—*New York Medical Journal.*

For Scarlatina.—Prof. Wilson begins the treatment of scarlatina with the administration of calomel, and then gives chloral as the main therapeutic remedy, in most cases throughout the disease. Complete narcotism should never be attained; it is desired merely to keep the patient quiet, easily aroused, and easily dropping off to a light sleep:

℞ Chloral.....gr. xxx.
Syr. lactucarii,
Aquæ .....aa ℥ss vel ℥j.
M.
Sig. Teaspoonful in ice water every two or more hours.
—*Col. and Clin. Record.*

Ether and Chloroform.—Dr. Chenury (Jour. of Amer. Med. Ass'n) says the following three points are greatly on the side of chloroform during confinement:

1. Unless the etherized patient is thoroughly under its influence, must be regarded as drunk or crazy, requiring considerable assistance to control and take care of her. Not so with chloroform, for she rather likes it and is able to help the physician.

2. Chloroform is not so dangerous to the child.

3. Ether, by its greater stimulation of the circulation, he believes is much more liable than chloroform to be followed by hemorrhage.

Early Symptoms of Rachitis.—The very young infant and the young child suffer from rachitis in many ways. Insomnia is quite frequent. Many sleep better when carried about on

the arm, because the cerebral congestion is lessened in the erect posture. As soon as they are laid down the brain becomes hyperæmic; the child wakes up and makes the night hideous. Such children have night terrors on waking up; they are very irritable, easily frightened, peevish, or morose or bad-tempered, sometimes to a degree of moral or intellectual insanity. The suspicion of rachitis ought to be aroused when children perspire copiously all over, or mainly on the head. They rub their heads on the pillow to such a degree as to become bald on the occiput. I wish I could impress the necessity of connecting these signs with rachitis, and the advisability of not waiting for all its most prominent symptoms to appear before the diagnosis is made. The regulation of the diet is the principal remedy, but it is a mistake to believe that a food which does not disturb the bowels is for that reason alone a sufficient nutriment and a safeguard against rachitis.—*Dr. A. Jacobi, Archives of Pediatrics*, November, 1896.

X-Rays Prevent Operation.—Dr. Vasseur, of Marseilles, swallowed a bone, which lodged in his throat. Thinking it still there, an operation was about to be undertaken, when the rays were utilized and showed that the foreign body had passed on, leaving only its irritation behind. An operation was thus obviated.—*Deutche medicinische Zeitung*; *N. Y. Med. Record.*

Antitoxin.—In their report on the collective investigation of the antitoxin treatment of laryngeal diphtheria in private practice, the Committee of the American Pediatric Society, recommend that antitoxin should be given at the earliest possible moment in all cases of suspected diphtheria.

Quality.—Of the products on the market, some have, by test, been found to contain one-half to one-third the antitoxin units stated on the label. Select the most concentrated strength of an absolutely reliable preparation.

Dosage.—All cases of laryngeal diphtheria, the patient being two years of age or over, should receive as follows:

First dose—2,000 units at earliest possible moment.

Second dose—2,000 units, twelve to eighteen hours after the first dose, if there is still no improvement in symptoms.

Third dose—2,000 units, twenty four hours after the second dose, if there is still no improvement in symptoms.

Patients under two years of age should receive 1,000 to 1,500 units, the doses to be repeated as above.—*Amer. Gynecological and Obstetrical Journal.*

EPILEPSY.—Voison maintains that of all drugs the bromide of potassium is the one which has done the greatest service. Germain Sée, Constantin Paul, Dujardin-Beaumetz, agree that bromide of strontium is less active. The potassium salt may be given to the adult up to eight or ten grams daily, and Fèré has gone as high as twenty grains.—*Delmis, in N. Y. Med. Record.*

Editorial.

CENTENNIAL CALLENDAR FOR JULY.

The month of June closes with a success far beyond the most sanquine anticipations of the most optimistic Centennial enthusiast. The many attractions during the month have been attended by vast multitudes from all parts of the world. The vast throngs that pressed through the various gates of entrance on the occasion of President McKinley's two days visitation were exceeded largely during the week following by the immense multitudes of Confederate Veterans, their relatives, friends and admirers, who made their way to Tennessee's fair capital by its various avenues of approach. Our railroads were crowded to their utmost capacity, quite a number of regular trains running as many as six and eight sections, as well as specials during the week. The population of Nashville was more than doubled during the week, and its hospitable inhabitants have stood the test both nobly and most admirably. Open houses and a warm welcome on every hand was cordially offered to all who came.

Our "Confederate Hotel," at the Haymarket Square, feeding from eighteen to twenty thousand per day, our public-school houses, churches, etc., converted into "free" lodging houses, and notwithstanding the immense number present during the week there was still room for more.

The grandest day of this glorious month was Confederate Day—June 24th, when thousands upon thousands of our citizens and the strangers within our gates witnessed the grand parade of Confederate Veterans,

there being over 10,000 in line, who surely received an ovation that did much to compensate for the trials, tribulations, pains and privations of the days of '61–'64. It was an occasion that will long be remembered by our people and their guests.

During July, the third month of its existence, in addition to the many inherent and acquired attractions of the Centennial City in the regular and special buildings and "Vanity Fair," the following special occasions are booked already, with others to be added as the days pass by. The famous "Innes' Orchestral Band," Fischer's Band, and other musical attractions, with magnificent displays of fireworks twice each week, are alone well worth all the trouble incident to a trip to Tennessee's grand Centennial Exposition:

July 1. Phi Gamma Delta Day.
1-3. Sigma Alpha Epsilon Fraternity--Jno. J. McNally, Nashville, Tenn.
3. Sigma Alpha Epsilon Day.
Southern Indiana Press Association--Three Days.
4-5. Commonweal Conference--Carl Brown, Secretary, Massillon, Ohio.
National Reform Press Association.
6. Tennessee State Dental Society--J. P. Gray, M.D., D. D. S., Nashville, Tenn.
9. Knights and Ladies of Dixie.
10. Normal's Day--Prof. W. M. Council, President, Normal, Alabama.
12-13. Epworth League Days.
13-14. Baptist Young Peoples' Union (Meet in Chattanooga the 15th-18th, stopping over in Nashville en route).
15. South Pittsburg Day.
20. Eighth Tennessee Regiment--Savage's Tigers; Hon. John H. Savage, Colonel.
Baptist Day.
Senate National Union--J. W. Myers, Sec'y, Toledo, Ohio.
International Association of Distributors--W. H. Steinbreuer, Secretary, 811 Vine St., Cincinnati, Ohio.
21. Tennessee State Druggists' Association--G. C. Childress, President, Knoxville, Tenn.
23-24. Cow Boys' League Day--W. A. Reages, Waco, Texas.
29. Working Peoples' Labor Day and Art Association (Colored)

FORTY-EIGHTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Instead of giving our readers a report or an abstract of the the semi-centennial meeting of the representative medical association of America, held in Philadelphia, Pa., June 1, 2, 3 and 4, 1897, we submit the following clippings from our exchanges who were more fortunately nearer the scene of action.

The fiftieth anniversary of the foundation of this great medical society was fittingly celebrated in Philadelphia last week by one of the most successful meetings recorded in the annals of the organization. The attendance was unusually large, the number of registered members being over two thousand, but so efficient was the management of the Committee on Arrangements there was no confusion whatever, and the exercises were carried out according to programme without a hitch. In addition to this being the largest it was also one of the most harmonious meetings that the present generation of members has ever had the good fortune to see, and it was most gratifying to find that the protests of the *Medical Record* against the quarrels which had become so frequent at the general sessions, which protests were rendered yet more effective by the earnest words of the President in his address at the opening meeting, had borne fruit so abundantly.

The addresses of the President and of Drs. Flint and Keen, full extracts of which were presented to our readers last week, were worthy of the occasion as well as of the authors. That of Dr. Senn, as is the custom in the presidential address, contained a number of suggestions for reforms and improvements in the manner of conducting the meetings. Had his genius risen to prescience, he undoubtedly would have uttered a word of protest against the publication of all the addresses in full in the daily papers, along with the portraits—dreadful caricatures—of the authors and others. The Publication Committee of the *Journal* would seem to have had a very loose hold upon the original copies of these addresses, for we cannot believe that the authors themselves would give them out to the press in direct violation of a rule of the Association.

The Committee on Nominations could not have made a better choice for President than that of Surgeon-General Sternberg, who is honored throughout the medical world, apart from his rank, for the vast amount of original work he has accomplished in many lines. The other officers and orators were also well chosen. The selection of Denver as the place of meeting in 1898 was well made. That city is nearly as accessible from points in the middle West and South as is Philadelphia, and it contains so many physicians who began their medical life in the East, after forming friendships which they have always kept up, that it will draw many men to the meeting who might not be tempted to go so far to any other city.

Dr. N. S. Davis was rightly the central figure of the jubilee exercises, and any man might well be proud to occupy such a position as his, at a moment when two thousand physicians were present in person and many thousand more in spirit, to do honor to the founder of the Association. Not only does the body owe to him in a measure its very existence in the form it now has, but his wise counsels have carried the organization through many periods of stress and danger. To few men is it given to watch their work for fifty years, and to see it grow and spread and finally become established firmly as a monument to his zeal more lasting than one of stone or brass. We trust the father of the American Medical Association will be spared yet many years to watch over and guide his fifty-year-old offspring.

The meeting, finally, will be memorable as the one at which the labors of Dr. Gihon, the indefatigable Chairman of the Rush Monument Committee, were crowned with at least the promise of success. In a few moments pledges were given by men whom he had moved by his eloquent appeal for an amount many times greater than the total that had so far been obtained by years of patient toil and entreaty. Few men would have persevered in the face of apparent defeat as Dr. Gihon has done, and when the monument is finally erected as a result of his untiring efforts justice will demand that his name be graved with that of Rush on the granite pedestal.—*New York Medical Record*, June 12, 1897.

It has been said that for a nation to feel that it has a past and a history is a wonderful encouragement to the growth of its moral forces. What is true of nations is true also of associations. The American Medical Association has now reached and passed the golden milestone of its existence. That it has a past and a history of which its members may be justly proud was convincingly presented in the brilliant address of the President, Dr. Senn.

Great achievements and a noble record, however, increase the responsibility of the present. Each annual meeting is an epoch-making event in the history of the Association, and it therefore becomes a pertinent question to inquire what this semi-centennial meeting has contributed that is worthy of the organization and of the event. Naturally, the anniversary feature has been prominent. It was a time for reminiscence, for mutual congratulation, for recalling the achievements of the past and forecasting the future. Much time was spent in this agreeable way, and with apparent satisfaction. Dr. Senn presented an exalted picture of the American medical education of the future, and of the rapidly improving institutions for medical educatinn that were destined, even in this generation, to become the finest in the world and to attract students from nations now supposed to be the centers of medical progress. In all fairness, his prediction seems to find justification in the tendency among rival schools to consolidate their resources and in the generous appropriation of large sums of money to build, equip, and endow pathologic and bacteriologic laboratories.

Dr. Flint's Address on Medicine was a thoroughly scientific paper, and a vigorous reminder of the fact that the Association numbered in its membership men capable of conducting the most original scientific investigations and making important physiologic discoveries in unknown fields. It will doubtless prove somewhat of a surprise to our Geman friends to learn that they have but recently been re-discovering a physiologic product originally discovered and named by an American thirty-five years ago. The importance of consulting Amerieau medical literature was thereby also emphasized.

The brilliant contributions of American surgery to the world's storehouse of knowledge was graphically portrayed by Dr. Keen in the address on surgery; and the presence of the venerable founder of the Association, Dr. N. S. Davis, and his active participation in the anniversary proceed-

ings was a feature of unusual interest and suggested the thought that the sturdy founder typified the staunch material of which the Association was composed.

The Rush Monument Fund now seems in a fair way of being completed in a reasonable time. Small contributions from the many is far better than larger subscriptions by a few. As Dr. Wood said in his eloquent appeal for opposition to the anti-vivisection bill now before Congress, what is needed is indidual personal effort on the part of the humblest member of the profession and the object is accomplished. Set the machinery in motion to promote this in State, county and town societies, and there is no reason why the complete fund shall not be realized before the next annual meeting.

The attendance was greater than of any previous meeting in the history of the Association, and the interest manifested in the scientific and public exercises was gratifying to a high degree. Philadelphia surpassed herself in the hospitality extended, and her guests were made to feel that she is indeed a city "which has the minimum of tenements and the maximum of homes exhaling an air of hospitality." Luncheons, receptions and dinners abounded on every day on every hand. Not the least appreciated among the entertainments was the theater-party given by the publishers, Messrs. Lea Brothers & Co., on Thursday evening, the size of which was limited only by the seating capacity of the theater. For a period covering four generations it has been the privilege of this house to enjoy the closest relations with the members of the medical profession. It is needless to say that the *entente cordiale* has at least not been lessened by this act of generous hospitality.—*Medical News, June* 5, 1897.

Dr. F. Horner, Chairman of the Committee on Medical Aid Society, submitted his report, which was referred to the Publication Committee. As the result of the report, the following resolutions, offered by Dr. Henry O. Marcy, of Boston, were adopted:

"*Resolved*, That the suggestion of Dr. F. Horner that steps be taken to organize a relief association for disabled physicians and the widows and orphans of deceased members be approved.

"*Resolved*, That a committee, consisting of a member from each of the several medical societies, be appointed by the Chair to formulate a scheme for the organization of such a beneficial association within the American Medical Association, and that this committee report in detail at the next annual meeting.

"*Resolved*, That the President add to the committee the names of the Secretaries of the State medical societies."

The Board of Trustees then submitted its report, which stated that during the last year the receipts from all sources were $43,505.66, while the expenses for the same period were $41,811.14. The balance, $1,694.52, added to the amount in the Treasuer's hands, $5,465.66, makes the total cash on hand $7,160.18, or about $3,000 less than that of last year. The report said that during the last year some of the funds of the Association had been placed in jeopardy because of a bank failure, and, while some

of the money had been returned, there was still a considerable sum tied up and unavailable. This would soon be paid back, and the Association would not lose by the failure.

Before adjourning a resolution was passed by the Association instructing the President, who will be elected for next year, to appoint within thirty days a committee of seven on transportation, which is to report at the next meeting to the Committee on Nominations the rates which the various railroads of the country offer to the convention of 1898, in order that the Committee on Nominations may be guided in selecting the place of meeting for the latter date.—*Philadelphia Polyclinic, June* 12, 1897.

Dr. A. L. Gihon, for the Committee on the Rush Monument Fund, reported that, while the mass of the regular profession in America had succeeded in twelve years in raising only $4,000, the small body of homeopaths in this country had in four years raised $75,000 and erected a monument to Hahnemann. The report stirred up the members, and $2,000 were at once subscribed, and promises of much more from various States.

An Executive Council of five, consisting of three officers of the Executive Committee and two officers to be elected, was decided on, which shall transact the duties commonly assigned to the Executive Committee during the intervals between the meetings. One of the five Councilmen shall belong to the Section on Practice and one to the Section on Surgery and Anatomy.

A further amendment to the Constitution adopted reads: "Any State or local medical society, or other organized institution, whose rules, regulations and code of ethics agree in principle with those of this Association, may be entitled to representation on the advice or agreement of the Judicial Council."

To expedite registration of members at future sessions, it was resolved that the Secretary of the Association be constituted a committee of one to conduct in the city where a meeting is to be held, for three days prior to the commencement of the meeting, a bureau of registration for the attending delegates, for which services he is to receive $100 annually.

President McKinley and Governor Hastings were introduced, made brief congratulatory addresses, and were cheered to the echo.

Dr. Horatio C. Wood, of Philadelphia, introduced a resolution, unanimously adopted, protesting against the passage by Congress of Senate bill No. 1,061 intended to prevent vivisection in the District of Columbia.—*Virginia Medical Semi-Monthly, June* 11, 1897.

The American Medical Association, which held its jubilee meeting in Philadelphia last week, has probably experienced the most successful epoch that has ever occurred in its existence.

The following officers were elected for the ensuing year:

President—Surgeon-General George M. Sternberg, Washington.

First Vice-President—Dr. J. M. Matthews, Kentucky.

Second Vice-President—Dr. W. H. Thompson, Indianapolis.

Third Vice-President—Dr. F. H. Wiggins, New York.

Fourth Vice-President—Dr. T. J. Happel, Tennessee.

Treasurer—Dr. Henry P. Newman, Illinois.

Secretary—Dr. William B. Atkinson, Philadelphia.

Assistant Secretary—Dr. W. A. Jayne, Colorado.

Librarian—Dr. George W. Webster, Illinois.

Chairman of the Committee on Arrangements—Dr. J. W. Graham, Denver.

Dr. Joseph Eastman, Indiana, and Dr. J. T. Priestley, Iowa, whose terms expired this year on the Board of Trustees, were renominated and Dr. Miller, Chicago, was named as the third member. All the members of the Judicial Council whose terms expired this year were renominated. They are Dr. D. W. Crouse, Iowa; Dr. T. D. Crothers, Connecticut; Dr. W. T. Bishop, Pennsylvania; Dr. R. C. Moore, Nebraska; Dr. G. B. Gillespie, Tennessee; Dr. C. H. Hughes, Missouri; and Dr. Ida J. Heiberger, District of Columbia.

In addition to the officers elected, Dr. J. H. Musser, Philadelphia, was appointed to read the next Annual Address on General Medicine; Dr. J. B. Murphy that on General Surgery, and Dr. Samuel C. Busey Washington, that on State Medicine.

Denver was selected as the next place of meeting.

The following were elected Delegates to the International Medical Congress, to be held in Moscow, next August:

Drs. G. S. Mitchell, J. E. Hyndman, Charles Dennison, A. M. Miller, H. L. E. Johnson, George M. Sternberg, A. Marcy, Sr., H. D. Holton, Thomas MacDavitt, I. N. Quimby and George R. Fowler.—*Maryland Medical Journal, June* 13, 1897.

Obituary—Lusk; Smith.—Among the notable and prominent members of the medical profession who have ceased their labors and have been called to their well-merited reward during the past month, the American people have cause to mourn the loss of Prof. Wm. Thomas Lusk, M.D., and Prof. J. Lewis Smith, M.D., of New York, both of whom have long been recognized as authorities on the important branches in which their labors have been crowned with well-earned laurels.

Prof. J. Lewis Smith, M.D., the distinguished writer on children's diseases, died at his residenc, in New York, June 9th, ult., in the 70th year of his age. Born in Stafford, N. Y., October 15, 1827; graduated from Yale in 1849, receiving his degree of M.D. from the College of Physicians and Surgeons of New York in 1853, since a practitioner of New York City, devoting his time to pediatrics. He was Clinical Professor of Diseases of Children in Bellevue Hospital Medical College, and the author of a "*Treatise on Diseases of Children*," so well received by the profession throughout the world, and of which many successive editions were issued, and recognized as authorative. He was of most kindly disposition and was most highly esteemed by all who knew him.

Wm. Thompson Lusk, M.D., LL.D., while to all appearances in per-

fect health, died suddenly of apoplexy, Saturday, June 12th ult. Born in Norwich, Conn., on May 23, 1838. In 1855 he entered the freshman class at Yale University, but left college on the completion of his first year. For three years, from 1858 to 1861, he studied medicine in Heidelberg and in Berlin. He then returned to the United States, and took his degree in medicine from the Bellevue Hospital Medical College in 1864. After his graduation in medicine he again went to Europe for further study, which he prosecuted in Edinburgh, Paris, Vienna and Prague. On his return home he was appointed professor of physiology in the Long Island College Hospital, of which chair he was the incumbent from 1868 to 1871. For the year 1870–1 he was also lecturer on physiology in the Howard Medical School. In 1871 he was professor of obstetrics, diseases of women, diseases of infants, and clinical midwifery in his alma mater, the Bellevue Hospital Medical College. He continued to hold that chair up to the time of his death, and it was in connection with the discharge of its duties that he won the rich professional honors and world-wide fame that fell to his lot.

It is primarily as an obstetrician that Dr. Lusk has been known, especially from his excellent text-book, "The Science and Art of Midwifery," a work that has passed through four editions and been translated into several European languages. In his later years he had given more attention to operative gynecology than to obstetrics, and in that field he was conspicuously successful.

Dr. Lusk was of rather slight build, but very active. He had a pleasing and very mobile face and a melodious voice. He was diffident among strangers, but genial and warm-hearted to the utmost. He was liked, as well as esteemed, by his professional brethren and by the community.

TENNESSEANS WHO HAVE PROSPERED IN THE GREAT METROPOLIS.—So many of our prominent families suffered great financial losses from the war that many of their sons became dissatisfied with the outlook and sought their fortunes in New York.

One of the most successful is Dr. William M. Polk, son of the lamented Bishop Polk. Dr. Polk has not only reached great prominence in the social and professional life of New York as a practitioner, as an author, and as a medical teacher; but it is said that his annual income from his practice is the largest in New York City—that is, about $100,000 a year.

Dr. Leroy Broun, son of the late Prof. Leroy Broun, of the Vanderbilt, is another Tennessee physician who has succeeded well in New York City.

Dr. C. C. Fite, who will be remembered by all of the members of the profession in Tennessee as having served six years as Secretary of the Tennessee Medical Society and two years as State Health Officer, has been living in New York now for nearly seven years, engaged in scientific and

literary pursuits, and we are glad to know that he has had no reason to regret having abandoned the labors of active practice and devoting himself to more congenial labors.

We will end this brief sketch here without endeavoring to enumerate the many successful business men in New York who hail from the old Volunteer State; but our three old friends referred to above should know that the latch-spring is on the outside if they ever choose to come down this way again.

It Has No Rival.—At the meeting of the American Medical Association held in Washington, D. C., Dr. Jonn H. McIntyre reported "Ten Selected Cases of Laparotomy, with Remarks." From this paper, published in the *Jonrnal of the American Medical Association*, we quote as follows: "I use but little opium or morphia, for the reason that these drugs, by locking up the secretions, limit the power of elimination, and therefore favor septicæmia. For over a year past, in cases of laparotomy where pain and rise of temperature were present, I have used Antikamnia, in ten-grain doses, with the happiest effects."

A further objection to opium and its derivatives is referred to in an article by Dr. Herman D. Marcus, resident physician of the Philadelphia Hospital (Blockley), published in *Gaillard's Medical Journal*, from which we quote: "There is probably no group of diseases in which pain is such a prominent and persistent symptom as uterine or ovarian disorders, and in no class of cases have I been more convinced of the value of Antikamnia than in the treatment of such affections. An obstacle in the use of morphia is the reluctance with which some patients take this drug, fearing subsequent habit. Antikamnia causes no habit, and I have never found a patient refuse to take it."

Digestion and Digestive Ferments.—To the casual observer and thinker it may seem that the subject of digestion and digestive ferments, both natural and artificial, has been thoroughly exhausted, and that with our present knowledge of both we have reached the acme of knowledge and perfection in both, and that the best possible results are now being obtained. Yet if the question were put to-day, "What is the great desideratum?" doubtless the reply, "A better and more general corrective and digestive," would be the demand paramount. We feel that this demand has been satisfied by the introduction of Elixir Maltopepsine (Tilden). Everywhere leading medical men of the day, who are desirous of, using only the most efficient therapeutic agents obtainable, are prescribing Elixir Maltopepsine (Tilden) in all ailments arising from faulty digestion. This is far in advance of all other preparations in the treatment of cholera-infantum and all forms of summer complaints with children. It is very palatable, and acts in all conditions of the stomach.

NEW BOOKS.—The following publications are now in press and will be ready for early publication during the fall and early winter months by W. B. Saunders, the well-known medical book publisher, 925 Walnut Street, Philadelphia, Pa.:

"An American Text-book of Genito-urinary and Skin Diseases;" edited by L. Bolton Bangs, M.D., and William A. Hardaway, M.D.

"An American Text-book of Diseases of the Eye, Ear, Nose and Throat;" edited by G. E. de Schweinitz, M.D., and B. A. Randall, M.D.

"Macdonald's Surgical Diagnosis and Treatment;" by J. W. Macdonald, M.D.

"Anders' Theory and Practice of Medicine: A Text-book of the Theory and Practice of Medicine;" by James M. Anders, M.D., Ph.D., LL.D.

"Senn's Genito-urinary Tuberculosis: Tuberculosis of the Genito-urinary Apparatus, Male and Female;" by Nicholas Senn, M.D., LL.D.

"Penrose's Gynecology: A Text-book of Gynecology;" by Charles B. Penrose, M.D. (Will be ready in August. Price, $3.50 net.)

"Hirst's Obstetrics: A Text-book of Obstetrics;" by Barton Cooke Hirst, M.D.

"Moore's Orthopedic Surgery;" by James E. Moore, M.D.

"Heisler's Embryology;" by John C. Heisler, M.D.

"Mallory and Wright's Pathological Technique;" by Frank B. Mallory, A.M., M.D., and James H. Wright, A.M., M.D.

"Sutton and Giles' Diseases of Women" (Sanders' Aid Series); by J. Bland Sutton, F.R.C.S., and Arthur E. Giles, M.D., B.Sc. Lond., F.R.C.S. Edin.

A full and extended notice will appear in our pages as the books are issued.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

OPHTHALMIA NEONATORUM.—Dr. E. F. West, of San Francisco, Cal., writes: "I have used Palpebrine with excellent results in ophthalmia neonatorum of severe types. Cleansing the eyes with a 25 per cent. solution every half hour, a few drops of full strength applied four times a day."

DOCTOR: Your library is not complete without the *Hypnotic Magazine*. Cost of this handsome monthly, including premium book on Suggestive Therapeutics, is only one dollar a year. Address The Psychic Publishing Company, 56 Fifth Avenue, Chicago.

A VALUABLE HYPNOTIC IN PNEUMONIA.—The necessity of overcoming the insomnia attending cases of pneumonia ought to be evident to every physician. Probably nothing known to the profession can alleviate the distressing symptom of sleeplessness so satifactorily and with so few after-effects as Bromidia. By the use of this reliable preparation we can obviate the effects of losing sleep, and at the same time feel that the heart', action is unimpaired, a dire calamity in a pneumonic process.—*Vermont Medical Monthly, February*, 1897.

SANMETTO IN BRIGHT'S DISEASE.—Dr. Charles F. Reiff, of Fremont Ohio, says: "I prescribed Sanmetto in a case of advanced Bright's disease. The patient became more comfortable, and since then has used several bottles of Sanmetto. In my opinion, Sanmetto is the most efficient remedy for diseases of the genito-urinary organs, and I shall continue to prescribe the remedy."

RHEUMATISMS AND NEURLGIAS OF MALARIAL ORIGIN.—The experience of thousands of medical men goes to prove that rheumatism or neuralgia concurrent with or following malaria must be treated in exactly the same manner and by the same agents as is the case when these troubles arise from other causes. In such conditions there is particularly indicated the eliminative action of Tongaline, either liquid or tablets, or in the form of Tongaline and lithia tablets, and Tongaline and quinine tablets.

WALKER-GREEN PHARMACEUTICAL CO.: I consider your Elixir Six Bromides the best of any other bromide preparation that I have used. Your preparations are all very good, but in my practice, which is mostly among women and children, I have occasion to use more of the Six Bromides. In almost every case where I prescribe it the patient returns for another supply, as the first has done her so much good.—*Mary E. Little, M.D., Nevada City, Cal.*

THE LARYNGOSCOPE, published in St. Louis, has been selected as the official organ, for the year 1897, of the Laryngological Section of the New York Academy of Medicine. This selection, and the great probability of the same journal being chosen by other Laryngological, Rhinological and Otological Societies as their official organ, would indicate that *The Laryngoscope* has become what its proprietors stated they intended to make it, *i. e.*, *The American Journal of Record* for the specialties represented.

IMPERIAL GRANUM.—This standard prepared food for invalids and children has won the enviable distinction of having successfully stood the crucial test of years of actual clinical experience in private practice, sanitariums and hospitals, while numerous competing preparations have appeared and disappeared, often so completely that even their names are forgotten. The Imperial Granum, however, enjoys so universally the confidence of physicians that its merits are beyond dispute. Moreover, the decision of its manufacturers not to publicly advertise it has secured for it the endorsement of even the most ethical members of the medical profession, who dislike to prescribe any article advertised broadcast to the people and profession alike. Physicians can obtain sample packages free, charges prepaid, on application to the Imperial Granum Company, New Haven, Conn.; or, John Carle & Sons, New York City.

Reviews and Book Notices.

ATLAS AND ESSENTIALS OF GYNECOLOGY. By DR. OSCAR SCHAEFFER, University of Heidelberg. Sixty-four full-page chromo-lithographic plates, comprising 159 figures; with descriptive text facing the plates, and over 300 pages of introduction and treatise illustrated with wood engravings; 12 mo., muslin, $3.50, net. (WOOD'S MEDICAL HAND ATLASES, VOL. V.)

The great beauty of this, the fifth volume of the series of Wood's Medical Hand Atlases, as well as the reputation of its gifted author, should, we believe, cause it to be most favorably received by the medical profession of this country, who have never before been offered works of such a high grade of excellence at such a moderate price.

This magnificent series is now completed with the fifth volume, which is fully up to the high standard of its predecessors, of which candor compelled us to speak in only the highest possible terms.

The subject of Gynecology, which has grown into such paramount importance in recent years, is most beautifully illustrated and illuminated by Dr. Schaeffer. While the text is clear, in accordance with most advanced views, and in keeping with the fame of this great author, the *gems of art*, the bright flowers *par* excellence will prove "things of beauty and a joy forever."

These plates in this series, printed in colors, some of them requiring twenty-one impressions of various shades and tints to secure the proper effects, have resulted in a most perfect representation of what is correctly seen by the eye. The size of the volume, as of the others of the series, 5 by 7½ inches, gives one the easiest practical method of reference.

A CLINICAL, PATHOLOGICAL AND EXPERIMENTAL STUDY OF FRACTURES OF THE LOWER END OF THE RADIUS, WITH DISPLACEMENT OF THE CARPAL FRAGMENT TOWARD THE FLEXOR OR ANTERIOR SURFACE OF THE WRIST. By JNO. B. ROBERTS, A. M., M. D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic; Professor of Surgery in the Woman's Medical College of Pennsylvania; Surgeon to the Methodist and Jewish Hospitals. Royal 8 vo., pp. 76, with 33 illustrations. Price, $1.00. P. BLAKISTON, SON & Co., 1012 Walnut Street, Philadelphia, Publishers: 1897.

The best authority in this country since the late Frank H. Hamilton has given us a very excellent dissertation on one of the practicing surgeons most frequent "*betes noir;*" one that has caused no little dissatisfaction with the labors and their results of some of the ablest and most careful surgeons. The subject is considered by Cases and Specimens, Experimental Observations, Causes and Mechanism, Symptoms, Diagnosis and Treatment. It has no index, but one is scarcely needed where everything is made so plain that "he who runs may read." The illustrations are simply magnificent, and the press work, paper, etc., fully in keeping with such an admirable little monograph. Get this work at once, it may save you trouble, if anything can.

SYRINGOMELIA: AN ESSAY TO WHICH WAS AWARDED THE ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA FOR THE YEAR, 1895. By GUY HINSDALE, A. M., M. D., Fellow of the College of Physicians of Philadelphia, and of the American Academy of Medicine; Member of the American Neurological Association, and of the Philadelphia Neurological Society, etc., etc. Royal octavo, pp. 74. THE INTERNATIONAL MEDICAL MAGAZINE Co., of Philadelphia, Publishers: 1897.

That this essay was awarded the Alvarenga Prize of 1895 is more than ample evidence of its unquestioned merit. A careful reading of its most excellent text and seeing the valuable illustrations will prove that the award was correct.

After an explanatory preface we find the following arrangement: History and Definition, Histology and Pathology, Semiology, Etiology, Forms of and Association with other Diseases, Diagnosis, Course of the Disease and Prognosis, Treatment, Two unpublished cases, Bibliography, and a full index. The price of this excellent little brochure is only $1.00, and it may be ordered from Messrs. P. Blakiston, Son & Co., of Philadelphia.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. By J. NEVINS HYDE, A. M., M. D., Professor of Dermatology and Venereal Diseases in Rush Medical College, Chicago, and FRANK H. MONTGOMERY, M. D., Lecturer on Dermatology and Venereal Diseases, Rush Medical College, Chicago. New (fourth) edition. In one octavo volume of 815 pages, with 110 engravings and 12 full-page plates, 4 of which are colored. Cloth, $5.25; leather, $6.25. LEA BROTHERS & Co., Publishers, Philadelphia and New York: 1897.

It is significant of the recognized value of this work that the demand for a new edition came even earlier than was anticipated by the author or publishers, attesting that it is steadily growing in favor. The reasons for this fact are not hard to find. Professor Hyde is one of the foremost of American dermatologists and teachers, and he has been able to impress upon his book the stamp of experience with a clearness that makes it of the highest service as a practical guide as well as a text-book. It answers the needs of the general practitioner, the specialist and the student, and is a happy example of the fact that such an apparentlΛ wide range of adaptation can be given within the compass of a volume of convenient size and price.

The new edition has been revised throughout, and every chapter bears evidence of the change and improvement made possible by the advance of dermatology. It has also been enriched with new engravings and colored plates.

The work is dedicated to Prof. Moriz Kaposi, the distinguished Dermatologist of Vienna, with his consent. From the preface we quote: "The doctrines based upon the recent progress of dermatological science, which have not been completely established, have been for the most part briefly noted, while essential facts, those especially resting upon pathological and bacteriological research, have been set forth and, when practicable, con-

sidered in detail. By the omission of material that no longer possesses value, it has been found possible to make required additions without increasing the size of the book." A most commendable feature, and one that will surely be appreciated.

HYPNOTISM AND ITS APPLICATION TO PRACTICAL MEDICINE, by OTTO GEORGE WETTERSTRAND, M.D., Member of the Society of Swedish Physicians in Stockholm; Corresponding Member of the Society for Physical Research, London; Corresponding Member of the German Society for Physical Research, Munich, Etc., etc. Authorized translation from the German edition, by HENRIK G. PETERSEN, M.D., Member of the Societe d'Hypnologie et de Psychologie, Paris, etc., together with letters on Hypno-Suggestion, by DR. PETERSEN. 8 vo., cloth, pp. 166. G. P. PUTNAM'S SONS, Publishers, 27 W. 23rd Street, New York. 1897.

This book is both thoughtful and practical, and is deserving of careful reading and earnest consideration. In no other work have we seen so practical and satisfactory an account of hypnotism as a therapeutic measure, and the preferences of the author are reduced to practical observations and their results. The warm reception given this work by our European colleagues is quite sufficient justification for commending it to American readers. This is not a manual, or text-book, on hypnotism but the results of a careful observers use of it as a therapeutic measure.

The work of the translator is acceptable, and his additions to the volume enhance its value. To those who desire to thoroughly investigate the subject it will prove a valuable aid.

WARNER'S POCKET MEDICAL DICTIONARY OF TO-DAY, comprising Pronunciation and Definition of 10,000 essential Words and Terms used in Medicine and Associated Sciences. Flexible leather cover, pp. 338. Price, 75 cents. WM. R. WARNER & Co., Philadelphia, Publishers. 1897.

One of the neatest and most compact and comprehensive works of the day. There is not a doctor in the land who would not do well in sending the small price needed by mail and receiving this remarkable little gem. The latest terms used will be readily found by consulting it. It is so handy and convenient. For medical students it will prove a boon indeed.

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inal Communications.

', PARTURIENT AND PUERPERAL WOMAN.*

A M'SWAIN, M.D., PARIS, TENN.

nt Solons wisely said: "The greatest study ı." The physician conversant with the ents in utero, the mechanism of labor and d pathological conditions incident to the ght well paraphase the Grecian proverb to study for a medical man is woman," and ut king of ancient Iseral, "for she is fear- y made." It was said by another eminent

*Tennessee State Medical Society at Nashville,

thinker that, "when the all-wise Creator designs to make a great man he first makes a great woman."

It is considered to be one of the highest duties of our profession to elevate the physical and psychical condition of the race, and we may truthfully say that no class of men within the radius of human effort have done more, and that without the hope of fee or reward for the advancement of the general well-being of the human species than the medical profession. But there remains much to be done, and in this work we are often confronted with opposition, prejudice and ignorance—factors which through erroneous education find easy lodgement in the mind—and which require volumes of knowledge and centuries of time to eradicate.

It is not the design of this paper to deal extensively in detail with the management of those conditions implied in the title—but to point out features of a more general nature, and to call attention to some evils that exist and suggest means for their removal.

The duties of the physician relative to a pregnant woman should begin very near the time when that new and strange condition of conception occurs and Dame Nature summons her forces to prepare a temporary habitation for the coming man.

And here we come in contact with false notions of modesty, so-called, but which in truth are only the results of ignorance or faulty training that causes a woman to conceal, if possible, from every one, physician included, the pregnant state. Indeed, this error is so deeply rooted in the minds of many, especially in what is called "upper case" society that they have come to regard child-bearing as a disgrace, while among the poor it is often regarded as a calamity, and in either case the woman no sooner becomes *enciente* than at once she is dejected, despondent or vicious, and perhaps with murder in her breast she contemplates the destruction of the fœtus, or half insane seeks to take her own life, or resorts to the use of narcotic drugs for the temporary relief of her imaginary ills and thus becomes a slave to chloral, morphine or tobacco curse.

The inevitable results of such a condition of the mother upon her offspring is freighted with possibilities so appalling that it should excite the serious study of the alienist and neu-

rologist, and demands the best thought and tactics of the physician in dealing with such cases.

The family physician is in no small degree an educator, and should seek as far as possible to correct the flagrant errors in regard to child-bearing that are becoming so wide-spread among our people.

It should be considered as the most exalted and honorable function of womanhood to bear and train children, and except for very obvious reasons the habit of prevention should be denounced as an unmitigated evil full of dangers, both moral and physical and in the highest degree degrading to the sex.

The physician should so intrench himself in the confidence of his patrons that they will not hesitate to consult him at an early stage of pregnancy, and he should be the custodian and watchful guardian of the woman all through the term, during labor in all its stages, and for at least sixty days after her confinement.

How different have been many of our experiences. The first knowledge often is in the hurried summons to attend the woman in labor, to find possibly that nature has been wise enough for the emergency; but, on the contrary, we may find conditions which tax to the utmost our skill and ingenuity, and may result fatally to mother or child, which could have been easily obviated by timely advice and care during pregnancy. Who has not seen the parturient woman in the frightful contortions of eclampsia, endangering the life of both mother and child. A striking example of neglect of the plainest indications for treatment for a few weeks previous to labor. This is only one of many illustrations of danger, disease and death that could be anticipated and forestalled by the watchful and intelligent physician if he had been advised, and for whom there is no apology, if, when the opportunity is had, he fails to enforce such measures as come under the domain of preventive medicine.

Again, the custom of a tyranical society that forces a woman indoors for six or seven months of the pregnant period, debarring her from social gatherings, from church, and all places of public resort, thus depriving her of the beneficial effects of pure

oxygen and sunshine, ought in the light of reason and common sense to be at once and forever abolished.

The baneful effects of such a course is obvious. Day after day and week after week, shut up in the treadmill of home life, with its drudgery and cares subjected to every sort of petty trial and annoyance, and breathing over and over again the same atmosphere, no wonder that she becomes fretful and despondent, loses much of her self-respect, neglects personal cleanliness, considering herself degraded she naturally becomes so. Her appetite becomes depraved, her bowels constipated, she increases fat at the expense of muscle, uric acid or albumen abound, the healthy metabolism of the tissues is impaired, and as the time grows apace she becomes a burden to herself, and not a very attractive spectacle to others.

On the other hand, if business needs or pleasure induces her to go abroad, then she must, in order to make herself presentable or to conceal the fact of her pregnant condition draw herself up into dimensions so small as to deceive, if possible, the very elect, thus compressing the pelvic organs and uterine contents out of position, interfering with the circulation and respiration, and doing violence to nature's processes, and both she and the child must inevitably suffer the penalties of the outraged laws of her being.

The remedy for this train of evils is plain. Strike off the shackles of a relentless and faulty law of society, and set free the captive. Proclaim to the world that, not only is child-bearing having the sanction of matrimony and the embodiment of law honorable and praiseworthy, but allow a pregnant woman, dressed with reference to comfort and health, go abroad into the free air of heaven and bask in the sunshine, mix with her friends, and with no feeling of embarrassment attend places of public or private resort and thus feel the thrill and glow of health and vigor, and bless the race by the impartation of mental and physical activities to her offspring. The writer having long practiced in the rural districts among a class of people that no condition excused from toil, and where the primitive rules of society left them practically without restraint and free to go whither they would, has observed the striking difference in the healthfulness of both mother and child, as compared with

the fashionable mother who, after languishing and fretting away her term of pregnancy in luxury and indolence, brought forth after a tedious and painful labor a puny, nervous infant, incapable of developing into a strong man or woman, and which, after a few short months of sickly babyhood was mercifully removed from this planet, and it was said the great Father had need of it and took it to himself.

It is a fact of history that our great men and women, as a rule, do not spring from the homes of luxury and ease, nor from the fashionable environments of high life, but they come from farm and factory. They come of mothers whose hands are accustomed to toil, whose breasts are replete with an elixir vitæ, the product of healthful exercise, common sense in dress, contact with sunshine and oxygen, and the assimilation of simple food.

These are the women who rock the cradles that move the world, and to their own satisfaction have in the faithful discharge of the duties of wifehood and motherhood secured contentment and solved the problem of "woman's rights;" while her less favored sister seeks new and strange diversions with poodle dogs, bicycles, etc., or aspires to take her place in the political arena, and in this way assist in saving (?) the country.

Another thought in this connection is that of intellectual employment. If there is anything at all in the doctrine of maternal impressions, if the moral and intellectual habits of the mother impress themselves on the formative mentalities of the child in utero, what must be the baneful effects of the vicious and trashy novel? or the recital of the fine details of crime so industriously circulated by a sensational daily newspaper, whose mission has ceased to be to lead human thought to high attainments and the development of true nobility of character, but which has come to cater to the low and vile taste of depraved natures, and feeds the distorted mind with a sickening pabulum of reckless detail of the most revolting crimes, and thus cultivates an intimacy with moral turpitude and degradation that pollutes and damns both him that gives and him that takes? The mother having fed her mind from such a source may introduce into the drama of drama of human life a being whose most natural tendency from the very hour of its birth is in the

downward direction projected for it while innocently wrapped in the uterine folds. Her reading and her surroundings should, therefore, be of such a character as to contribute to her own intellectual and moral well-being; and if the law of impress above referred to is speculative, no comment is needed to make plain the result, which would be a capacity for rising in the scale of intelligence bequeathed the child by its mother—a legacy more to be desired than sordid wealth or titled dignity.

It has been repeated from the pulpit, press and rostrum that in proportion as *man* has advanced in civilization the condition of woman has been elevated from a beast of burden to an honorable place in society. May not the reverse of this statement be true, *i. e.*, that in proportion as *woman* has in the exercise of her native capacities developed those finer qualities (to which man by nature is a stranger) that the world has felt the impress of her matchless influence, and *man* has been elevated because of the refining power of *woman?*

With reference to medicinal treatment of the pregnant woman, if the suggestions herein were simplified and enforced but little medication would be needed, except for the relief of previously existing conditions or for hereditary predispositions; and each case being a law unto itself, we pass on to consider the parturient woman.

There is no department of practice that brings to the competent physician more concern than his attendance on a woman during the trying ordeal of parturition. No branch of the science of medicine that requires more study, and none fraught with issues more weighty. Ordinarily, in the practice of our art, the life and well-being of only one individual is involved, but here the responsibility is doubled, in that the life of two or more are in the balance. And here, again, we are met with a strange disregard upon the part of the laity with reference to conditions and requirements, so much so that in many sections of our own State the management of the parturient woman is entrusted to an ignorant and filthy old woman. With all the marks of that self-conceit which is born of the most stupid ignorance, with unkempt hair, a bad breath, untrimmed nails and dirty hands, she goes up and down the country seeking whom she may devour. Yet this "paragon of excellence" is a special favorite of the

law-makers of Tennessee, and has been granted special privileges to pursue her calling without stint or hindrance. Why, in all reason and justice, should we have a statute preventing men from engaging in the practice of medicine and surgery unless they produce satisfactory proof of competency, and by the same law allow men and women with no qualification whatever to practice this equally important branch of the profession?

This State Society, acting with the Board of Health, should use their combined influence with our Legislature to so amend the medical practice law as to exact the same requirements of persons desiring to practice obstetrics as are exacted of the surgeon or practitioner, and thus protect child-bearing women from the possible evils entailed through the ignorance of self-constituted midwives and stop this slaughter of the innocents.

But we must pass on to consider some general observations in regard to the management of the parturient woman; and here we are tempted to go into detail, but time will not permit.

Summoned to attend a case of labor, the practitioner should go well equipped for his work. He should have in his satchel all essential articles to meet ordinary emergencies—antiseptics, chloroform, restorative agents, a Kelly pad, antiseptic dressings, a good fountain syringe, and instruments sufficient to repair ordinary rents. He should carry nothing with him in the way of instruments or appliances, nor germs of disease on his person or clothing, that could possibly infect his patient. He should be clean and neat in personal appearance, courteous in his behavior, and conscious of his own ability. It is his duty to superintend the preparation of the patient and her bed; to have her bathed thoroughly, clad in clean garments, and placed on a clean, firm bed. Her bowels should be washed out, and likewise her vagina if there has existed any diseased condition of the parturient canal. In short, the modern methods of asepsis and antisepsis which have been the result of scientific research should be scrupulously enforced, both with reference to the physician, the nurse and the patient. And the physician who, from either ignorance or careless disregard of those principles, fails to protect the woman from infection is guilty of the most inexcusable neglect.

To say that most labors terminate favorably, and that in cases

where no precautions are taken no evils follow, and hence the observance of those rules are useless, is no excuse. Negative evidence is a weak thing at best, and one positive instance of disease clearly traceable to willful neglect, although he may have had a hundred to escape, is sufficient to overwhelm with grief and shame a conscientious man. He may not always be able to carry out in every detail the practice indicated, but every one owes it to himself and to the profession to spare no pains to make the best efforts possible under conditions by which he may be surrounded.

After the delivery of the child and the entire placenta, and securing a permanent contraction of the womb, we should at once ascertain if there be any rents, and, if so, repair them under strict aseptic and antiseptic rules. Nor should we consider our services over until the patient has been thoroughly cleansed and dried, an antiseptic dressing placed next the vulva, and she placed on a clean and comfortable bed, with positive instructions that she be kept clean and at rest, properly fed, the bowels kept open, and that proper care be taken of the nipples; that the urine is passed in sufficient quantity and the lochia healthy. Any departure from normal conditions must, of course, receive such attention as is required.

Should these general suggestions in the management of the pregnant woman, and of proper treatment during and immediately following delivery, be carried out, and minor details added and scrupulously observed, few and far between will be the disasters of the puerperal state, the vast field of the gynecologist would be greatly curtailed, and our noble profession, the conservators of the lives and health of the people, will merit and receive from womankind a grateful appreciation that will largely compensate the physician in the discharge of his onerous duties and the responsibilities of a life self-immolated in behalf of humanity, devoted to the single purpose of restraining and mitigating the evils entailed by a common heritage.

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ANTISEPTIC OBSTETRICS.*

BY A. B. RAMSEY, M. D., M'MINNVILLE, TENN.

THIS is certainly a hackneyed subject. It has been written about and talked about until it would seem that every medical practitioner understood and applied its principles. Such, however, is not the case, and, while I know that you have been surfeited long ago with essays on the subject, I have, even at this late day of antiseptic refinement, witnessed instances of such flagrant neglect of even ordinary cleanliness in puerperal management, with consequent disaster, that I abandoned my original subject—one, by the way, of peculiar interest to me—for this one. By actual inquiry I have learned that many physicians make little or no use of antisepsis in confinement cases. Indeed, a description of the technique of some of them would convey an inference of the studied practice of the opposite of antisepsis. It is barely possible, though I doubt it, that perfect aseptic midwifery is practiced in some hospitals, but I am of the opinion that it is never practiced in private homes. In fact, I am almost persuaded that it cannot be used in general practice, because the environments of most puerperal women make its practice impossible. Therefore, the management of the great majority of lying-in women must necessarily be antiseptic rather than aseptic.

The antiseptic era in obstetrics may be said to date from the year 1870. Previous to that year puerperal diseases, due to septic infection, were of common occurrence, and were of more frequent occurrence in hospitals than in private practice. Since the adoption of antisepsis in these institutions the percentage of deaths is exceedingly small, the ratio of deaths to the number of confinements being determined by the thoroughness of antiseptic management, while in private practice, especially country practice, the death rate has not been so greatly reduced. The reason is obvious. Previous to 1870 a certain percentage of deaths

*Read before the Tennessee State Medical Society at Nashville, Tennessee, May, 1897.

from infection was considered inevitable, a necessary consequence of labors in crowded hospital wards. The reduction of this per cent to a minimum under strict antisepsis demonstrated the fallacy of the idea, and should now prove sufficient argument against all objections to its application by general practitioners. If the death rate in hospitals can be thus reduced, is it not the duty of every private physician to give his puerperal women the same immunity against danger and death? It is most emphatically his duty, but I regret to say I believe a large number of general practitioners fail in this duty. This is especially so in some rural districts, as I have learned through careful inquiry. I do not arrogate to myself superior antiseptic knowledge. Indeed, I am but poorly accomplished in the theory of antisepsis, and therefore do not claim the ability to instruct any physician in his duty on this line. My knowledge and advocacy of antisepsis are chiefly due to the daily application of simple, practical antiseptic methods and their salutary results.

Looking back over a generous obstetric practice of twelve years that includes numbers of instrumental deliveries and mutilations, I am forced, by comparison of results, to admit the advantage of antiseptic over primitive methods. Good results are good arguments. I did not always advocate antisepsis. Several monuments were erected to my skepticism. No monuments have been erected for many years.

"Tables of the Maternité Hospital of Paris show a mortality of from 7 to 20 per cent. from 1860 to 1870. In 1888, under antisepsis, 1-10 per cent. In the Maternité of Prague in 1879 the mortality was less than one-half of 1 per cent. Leopold records in 1,686 labors in one year not a single death from infection, and in 1,403 labors in the next year not a single infection. It should be stated that these statistics include many operations."*

These statistics are taken from hospitals where, no doubt, the very acme of antiseptic refinement was reached. They are extremely significant, and should provoke serious thought upon our obstetrical conduct. Such statistics might be multiplied indefinitely, but it is entirely unnecessary. Antiseptic confine-

*American System of Obstetrics.

ment is only a little more than ideally clean confinement. It is, therefore, marvelous to me, in view of its beautiful results in lying-in women, that every physician who has either personal or professional pride does not insist upon its habitual practice.

The average ante-antiseptic confinement in my practice was disgusting and dangerous in the extreme. From the beginning to the close of the puerperal state true septic hospitality was maintained. A generous diet and a downy bed were provided, and a standing invitation was given to septic germs to enter and feast and repose on the woman's insides. The wonder to me now is that in the majority of cases these germs were too timid to accept the invitation, that a large per cent. of my confinement cases did not end disastrously. Nature, however, is a wonderful fighter, and to her stubborn resistance against infectious matter must be due the small ratio of fatal results to primitive confinements.

The day of dirty finger-nails, old, ragged quilts, resurrected after years of rest from similar duty, soap and water scarcity, and rancid hog's lard, that has fattened, and is the home of myriads of germs eager to migrate to new fields, is supposed by many to be gone forever. The day when the accoucheur went to his patient empty-handed, save a bottle of ergot, is supposed by many to be a legend pure and simple. Gentlemen, you are wrong in your suppositions. In the practice of some doctors, called good by their clientele, especially good in obstetrics, I know these days yet exist. The question naturally arises, Why do they exist? when medical literature teems with antiseptic information and unanswerable testimony to the life-saving property of antiseptic practice, and when even the humblest and most isolated doctors have access to abundant cheap literature on the subject.

There are men of ability who know little of antisepsis, and care less; they are already established as strong men in the esteem of their patrons; their positions are stable, hence they have no pressing necessity for study and research, or the adoption of improved methods. Free from financial reasons for "keeping up with the times, and without fear of being supplanted," they are content to remain in old ruts and give their patients the consequences.

There are men practicing medicine with the legal consent of Tennessee, and some with parchments of high authority from medical universities who do not know the meaning of the word antisepsis, who either never can or will acquire refined methods of treatment in any branch of medicine.

There are some accomplished men who study the latest literature and are mentally progressive; they are well versed in advanced theories, but have not the energy to keep them alive to their patients' best interest.

There are men, both accomplished and ignorant, who have achieved success through intelligent, old-time practice, and stumbled on good results through luck and nature's aid, who disbelieve in antisepsis. They have succeeded in the old way and do not propose to introduce new-fangled theories into their practice. Puerperal infection after safe primitive delivery is a strange result to them. They fail to understand why it should have occurred. A proposal to use an antiseptic intra-uterine douche in such a case by a consultant is bitterly opposed. These men are full-grown and content with their stature. Now, as full growth is always followed by decay, these men, instead of improving their methods, will open wider the doors to infectious germs.

From time immemorial lying-in women and their chambers in the country have been prepared and presided over by wise old women, some of whom are so sensitive and so jealous of their superior wisdom that they resent in no uncertain terms any suggestions of change or improvement in their preparations. Some physicians are too timid to quarrel with these old grannies, and consequently accept situations of their creation.

A few days ago, in a discussion of antiseptic details in midwifery with a highly cultured physician, he ended the discussion with this remark: "Oh, that theory is very nice, but it can't be applied in country practice." Fear of details, then, is a reason for neglect of antisepsis.

Now, after having given some of the reasons why antiseptic midwifery is not practiced, a very pertinent question presents itself, viz.: How to practice it in the country? It is impossible to practice ideal antisepsis in the country for two reasons. First, because the physician has not the time or power to abso-

lutely control and dictate the preparation of the lying-in woman and her chamber. He frequently does not know before labor begins that his services will be desired, and frequently his patient's circumstances are such that even clean environments cannot be had. Second, because the details of perfect antisepsis are too complicated for every-day country use. How, then, may we simplify methods in order to make them practical and efficient?

I long since realized the fact that if I risked being able to make preparations for antiseptic management of puerperal cases after receiving the calls to attend them I would rarely use antisepsis at all, and never efficiently.

A physician to be a thorough practitioner of antiseptic midwifery must be always prepared, so that a summons at any moment may find him ready to go at once. The only way to be thus prepared lies in the possession of a bag or case containing all the necessities for antiseptic and operative work. The case I have used for several years contains instruments for all obstetric emergencies and operations—ergot, chloroform, ether, carbolic acid, Monsel's solution, antiseptic ointment, antiseptic soap, sublimate and hydro-naphthol cotton, sublimate, hydro-naphthol and iodoform gauze, a roll of sublimate cloth, sublimate and hydro-naphthol tablets, nail brush, scissors, sterilized ligatures, sterilized sponges—large and small—syringe, catheters, curettes and douche canula, needles, etc. I use this case for no other than obstetric cases. See that it is always ready for use, and under no circumstances attend a case without it.

My technique of a given case is as follows, and begins in my own person: If sufficient time is allowed, I take a thorough bath and change my clothes and linen. If my outer garments have been in suspicious places, I change them. After the most thorough preparation of the woman's clothing and bed obtainable under the circumstances, I direct an enema to be given. After this has produced the desired effect, I have the external genitals and neighboring parts thoroughly cleansed with antiseptic soap and bichloride solution $\frac{1}{1000}$, rarely shaving the mons, if the washing is satisfactory. Formerly I employed antiseptic douches habitually; now I never use them unless I have cause to believe the vaginal secretion septic. At the close of the first stage of labor the

bladder is emptied and the patient placed in bed on a Kelly cushion that has been made aseptic, with her gown drawn well above her waist. I call for two bowls, or vessels, and fill them with solutions of bichloride of mercury $\frac{1}{2000}$ and $\frac{1}{500}$. Before all examinations, I remove my coat and carefully cleanse and render aseptic my nails, hands and arms to the elbows by means of hot water, antiseptic soap and nail brush, rinse them in the stronger bichloride solution, anoint them with antiseptic vaseline, dip them in the milder solution, and carry my hands to the patient's vulva clean and aseptic. (Since writing the above I have abandoned ointments before examinations because they are not necessary, as the natural secretion is sufficient lubricant to the examining hand.) Just as few examinations as possible are made. Only a few are necessary in ordinary cases. At the proper time after delivery I turn my attention to the delivery of the placenta. Under no circumstances except absolute necessity do I introduce my hand into the uterus or exert strong traction on the cord. It is rare that gentle, yet firm, external pressure with friction over the uterus fails to effect expression of the after-birth soon enough after delivery. If forced to do so I carefully prepare my hand as for examination, introduce it into the uterus and carefully scoop out the placenta with all clots and shreds of membrane. After attention to the child the mother is usually sufficiently rested to receive the final toilet. She is sponged off thoroughly wherever soiled with hot antiseptic solution and antiseptic soap. The Kelly pad is then removed, leaving her on clean, unsoiled sheets. It sometimes occurs that an unusually restless patient gets off the cushion, thus soiling her garments and bedclothes. In such event I direct that everything the least soiled shall be removed and clean clothes substituted.

After my patient has been made comfortable and clean I adopt means for receiving the lochia. Sterilized pads are excellent, but not entirely convenient for country use. I am in the habit of ordering large napkins that have been thoroughly boiled and ironed and stowed away in a clean place. Before applying one I direct that it be repressed with a very hot iron, and a strip of bichloride gauze placed between it and the vulva. I formerly used antiseptic vaginal douches throughout the puerperium for the reason, as I thought, to destroy dangerous germs that invari-

ably existed in all puerperal women's vaginæ. I abandoned this practice as useless several years ago for this reason: I believe if the accoucheur does his whole antiseptic duty in the confinement, and the nurse follows his antiseptic advice with regard to both the management of the patient and her own person, there will be no septic germs to threaten infection, and therefore no necessity for douching that is troublesome and annoying, and even dangerous in unskillful hands. My opinion is that a large number of cases of puerperal infection are due to careless and filthy nurses. We have no trained nurses in the rural districts. We are forced to depend upon any old women obtainable to nurse our lying-in women. They are hard to control because they are brimful of self-esteem and ignorance. They are not competent to properly use douches if they were necessary. I endeavor to prevail on these nurses to keep themselves clean, and never to touch my patients' vulva without first rendering their hands aseptic according to my directions. A very important caution to a country nurse, and one I emphasize, is not to relegate her duties to some kind neighbor who has run in to give the nurse a little rest; who may, in the mistaken kindness of her heart, work irreparable disaster to the sick woman. She may be clean, but she is not aseptic.

I can remember the time when puerperal women were compelled to lie in bed for days, getting no relief for bowels or bladder except on an old-fashioned bed-pan or an old ragged quilt. This was a most abominable practice. I doubt not the enforced confinement to bed with little change of position by favoring the retention and decomposition of *debris* that should be drained away constitutes a grave risk of infection, a risk far more grave than that incurred in assuming the upright or semi-upright posture. I have seen no harm result from having my lying-in patients assisted to a commode for the purpose of relieving the bladder and bowels; I believe it is good practice because by law of gravity it procures a perfect drainage of matter which, if retained, must sooner or later become septic and hurtful.

While most puerperal women recover, regardless of environment and treatment, if, by practicing strict antiseptic methods, one woman's life is saved in a doctor's whole career, their virtue

is proven, and his failure to apply them is barely short of criminal. My management of lying-in women does not represent a perfect application of antiseptic details, but it is practical, easily applied and effectual. The results have been all that could be desired, which is ample proof of their efficiency.

Since the adoption of the foregoing details of antisepsis in my obstetric practice I have had no cases of puerperal infection. No milk fever, even, except in a few instances, where antiseptic precautions were imperfectly observed. This experience, in spite of the crudest nursing imaginable.

GUN-SHOT WOUND OF ABDOMEN; SUTURE OF PERFORATED INTESTINES; RECOVERY.

REPORTED BY MOORE MOORE, JR., OF MEMPHIS, TENN.

It was my good fortune to witness this operation and to watch the case during convalescence, and I only hope, in bringing it before you, that my report of same may be of as much interest to you as the case itself was to me. It occurred in the practice of Dr. T. J. Crofford, of this city, who was the operating surgeon in the case.

Early in the morning of April 24th, Dr. Crofford received a hurried call to see Mrs. A——, of Memphis, whom he found to be suffering from a pistol-ball wound in the abdomen. The shooting was accidental, and was done from a distance of four feet with a Smith & Wesson 32-calibre pistol. The ball entered the cavity just to the right of the median line and about one inch below the umbilicus. She was suffering much pain, her pulse was rapid with fair volume, expression blanched, symptoms indicating great shock. An immediate laparotomy was advised. This was accepted, and preparations were begun accordingly. The hygienic surroundings were not good, and it was necessary to operate in a poorly lighted room.

The patient was put on the table under ether anesthesia at 11 A. M., about four hours after the shooting had taken place. The abdomen was laid open by a four-inch incision, and an in-

The intestines were examined in their entirety
ch part, after examination, being laid without
ed by warm, sterilized gauze towels. A most
was revealed, owing to the number of perfo-
ere found eleven perforations, nearly all of
ileum and duodeum, two of them being in the
he colon was uninjured. Frequent blood-clots
showing hemorrhage had been free. Each
s found, was closed with small Lembert sutures,
vity was washed out thoroughly, the incision
ient put to bed, a glass drainage-tube having
here was not as much shock following the
t have been expected. At 4 P. M. her tem-
°; pulse 120, with fair volume. This condi-
obality, due to absorption within the cavity,
ed after cleansing. Two hours later it had
nd at 9 P. M. the thermometer registered 101⅘°
, with patient resting quietly. Satisfactory
d from the bowels on the following day, and,
e many perforations, no trouble was expe-
ount. The drainage was moderate, and was
-eight hours, when the tube was removed.
as not risen more than one degree since. Con-
id and recovery uneventful. Of course, the
epsis possible under existing conditions was

ngly illustrates what can be done in the prac-
ntisepsis, coupled with paine-taking care in
every perforation.

During the administration of ether the most
gnals are sudden pallor of the face, dilatation
darkening of the blood. When these symp-
elves the anesthetic should at once be with-
ting measures instituted.—*Cincinnati Lancet-*

Selections.

REPORT OF SIXTY-NINE CASES OF AMPUTATIONS AT THE HIP-JOINT BY THE WYETH METHOD.—John A. Wyeth (Annals of Surgery, vol. xxv, No. 2) records a death-rate of 13.9 per cent in sixty-nine cases. The factors in the fatal cases were hemorrhage before operation, or shock. Of forty cases of sarcoma four died; of twenty-two cases of inflammatory bone disease three died. The efficiency of the method in controlling hemorrhage was demonstrated to be absolutely satisfactory in every instance but two. In one case the constriction was not tight enough; in another case the pins were not sufficiently strong.

Weyth's method is as follows: The patient should be placed with the sacrum resting upon the corner of the operating table, the sound limb and arms being wrapped with cotton-batting and thoroughly protected from unnecessary loss of heat. The limb to be amputated should be emptied of blood by elevation of the foot, and by the application of the Esmarch bandage, commencing at the toes. Under certain conditions the bandage can be only partially applied. When a tumor exists, or when septic infiltration is present, pressure should be exercised only to within five inches of the diseased portion for fear of driving the septic material into the vessels. After injuries with great destruction, crushing, or pulpefaction, one must generally trust to elevation, as the Esmarch bandage can not always be applied. While the member is elevated and before the Esmarch bandage is removed the rubber-tubing constrictor is applied. The object of this constriction is occlusion of every vessel above the level of the hip-joint, permitting the disarticulation to be completed and the vessels secured without hemorrhage and before the tourniquet is removed. To prevent any possibility of the tourniquet slipping employ two large steel needles or skewers, three-sixteenths of an inch in diameter and ten inches long, one of which is intro-

duced one-fourth of an inch below the anterior superior spine of the ilium and slightly to the inner side of this prominence, and is made to traverse superficially for about three inches the muscles and fascia on the outer side of the hip, emerging on a levcl with the point of entrance. The point of the second needle is thrust through the skin and tendon of origin of the abductor longus musclc half an inch below the crotch, the point emerging an inch below the tuber ischii. The points should be shielded at once with cork to prevent injury to the hands of the operator. No vessels are endangered by these skewers. A mat or compress of sterile gauze, about two inches thick and four inches square, is laid over the femoral artery and vein as they cross the brim of the pelvis; over this a piece of strong white rubber tubing, half an inch in diameter when unstretched, and long enough when in position to go five or six six times around the thigh, is now wound very tightly around and above the flexible needles and tied. If the Esmarch bandage has been employed, it is now removed. Excepting the small quantity of blood between the limit of the Esmarch bandage and the constricting tnbe the extremity is bloodless, and will remain so.

In the formation of the flaps the surgeon must be guided by the condition of the parts within the field of operation. When permissible, the following method seems ideal: About six inches below the tourniquet a circular incision is made down to the muscles, and this is joined by a longitudinal incision commencing at the tourniquet and passing over the trochanter major. A cuff that includes everything down to the muscle is dissected off to near the level of the trochanter minor. At about this level the remaining soft parts, together with the vessels, are divided squarely down to the bone by a circular cut. At this stage of the operation the central ends of the divided superficial and deep femoral veins, as well as the arteries, are in plain view and should be tied with good-sized catgut. This done, the disarticulation is rapidly completed by lifting the muscular insertions from the trochanters and digital fossa, keeping very close to the bone with the knife or scissors, and holding the soft parts away with retractors. The capsular ligament is now exposed and divided, and by forcible elevation, abduction and rotation of the

femur, it is widely opened, the ligamentum teres ruptured, and the caput femoris dislocated. If properly conducted up to this point, not a drop of blood has escaped, excepting that which was in the limb below the constrictor when this was applied. The remaining vessels which require the ligature should now be sought for and secured. These are: the saphena vein, which on account of its proximity to the main trunk should be tied; the sciatic artery, which will be found near the stump of the sciatic nerve; the obturator, which is situated between the stump of the adductor brevis and magnus, usually about half way from the centre of the shaft of the femur to the inner side of the thigh, the vessel being on a level with the anterior surface of the femur; the descending branches of the external circumflex, two or three in number, usually found about an inch and a half outward and downward from the main femoral vessels beneath the rectus and in the substance of the crureus and vastus externus. The descending branches of the internal circumflex are insignificant, and are usually found on the level of the femoral vessels in the substance of the adductor longus and between it and the adductor brevis and pectineus.

In tying the larger femoral vessels Wyeth makes it a rule to dissect both the superficial and deep femoral stumps back from one-half to three fourths of an inch, so that he can apply the ligature behind any of their branches which may have been divided close to their points of origin, and does not hesitate to include the large veins in the same ligature in order to save time. With the vessels mentioned quickly secured, there is really no necessity for even temporarily loosening the tourniquet. If the operator is not sure that he has found and securely placed the ligatures upon these larger vessels, it is a simple matter to slowly loosen the grasp of the torniquet until the pulsation of the larger trunks is perceptible. No attention should be paid to the general oozing from the large muscular surfaces which have been divided. If every oozing point were ligatured, from half an hour to an hour would be consumed in securing a dry wound in the majority of cases. In order to hasten the operation and stop the oozing, introduce a snug packing of sterile iodoform gauze ribbon into the cavity of the acetabulum and the space between the muscles from which the bone

has been removed, leaving one end of the ribbon to pass between the flaps for the purpose of its removal. With a long, half-curved Hagedorn-Fowler needle armed with good-sized catgut, deep sutures are passed through the stumps of the divided muscles in such a way that large masses of mucles are brought tightly together when these sutures are tied, taking two to four inches in the grasp of each suture. The needle is not passed in the proximity of the large vessels or the sciatic nerve, but in all other directions the muscles are rapidly quilted together. This effectively and rapidly controls all oozing. Nothing remains but to close the flap with silkworm-gut sutures, and cleanse it off thoroughly dry, seal it with collodion in its entire extent to prevent any infection from the genital or anal region, apply a large, loose dressing of iodoform and then sterile gauze, and a light bandage over the first light dressing. The pins are then removed and the remainder of dressing completed. Preliminary pressure of the light dressing prevents oozing, and the wound remains dry.—*Therapeutic Progress.*

Chronic Gastritis.—Prof. H. T. Webster, M.D., of San Francisco, in a recent publication, discusses chronic gastritis and its treatment. After a careful *resume* of the etiology and pathology of the affection, and an enumeration of the symptoms attending it, he says, in speaking of the diagnosis:

"The use of the stomach-tube will afford the best means of diagnosis. If siphonage be practiced an hour or so after eating, hydrochloric acid will usually be absent, and lactic acid, associated with fatty acids, are present with a large quantity of mucus. If siphonage be practiced seven hours after eating, undigested food will be found still remaining in the stomach, while in cases of functional dyspepsia it will have disappeared. Malignant disease will be excluded by lack of cachexia, absence of perceptible tumor upon palpation, and by the character of the material vomited, coffee-ground material soon appearing in cancer. In gastric ulcer, a diagnostic feature is frequent hematemesis."

He believes that if a proper diet be pursued and rational medicinal treatment be employed, almost every case of chronic gastritis will improve readily, unless it be complicated by gas-

tric carcinoma, gastric ulcer, or hepatic, renal, or pulmonary disease. His treatment consists in lavage, disinfection and cleansing of the viscus with hydrozone. Lavage should be practiced every morning before eating, a small quantity of water (a pint) being used at first, which should be increased to two or three quarts as the treatment is carried on. The water should be warm (98.6° F.), and solutions containing Glaucer's salt, asepsin or boracic acid are often useful. Regarding the use of hydrozone in this affection, he says:

"The introduction of hydrozone as a remedy in this condition was an innovation of remarkable value. A drachm of Marchand's hydrozone, added to four ounces of boiled water, and drunk while the stomach is empty, exerts a powerful influence in dissolving and removing the tenacious mucus, destroying microbic elements of fermentation and stimulating normal action in the diseased mucous surface. The best results follow its use in the morning before breakfast, the patient taking it while in bed, and remaining on the left side for ten minutes before rising. It may be taken oftener, but once a day may suffice, and it is advantageously used in this manner after the practice of lavage.

The hydrozone may at first produce acrid sensations in the stomach, but, as the irritated gastric surface improves in tone under its influence, this will pass away and sensitiveness to its action will subside. Where necessary the amount of hydrozone may be reduced until the stomach becomes more tolerant to it.

The important step in chronic gastric catarrh, as in catarrh of all other mucous cavities, is the cleansing of the part from the ropy mucus, which clogs the glandular organs, and serves as a nidus for the operation of agents of fermentation. Glycozone in teaspoonful doses, diluted with water, administered after meals prevents fermentation of food and accelerates a cure.

If the treatment outlined above be properly carried out, the writer believes that little more is necessary, for with the removal of morbid accumulations the gastric secretions will become normal in quantity and quality. Hydrochloric acid, administered internally, may in some cases do good, as also the bitter tonics, but their place is secondary to the use of the stomach-tube and the disinfection of the mucous membrane of the stomach with hydrozone.—*New England Medical Monthly.*

TREATMENT OF DYSMENORRHEA WITH THE GALVANIC CURRENT.—Dr. O. A. Gordon (*Brooklyn Medical Journal*, January, 1897) has employed this method of treatment for the past three years, and he believes that for cases not due to a faulty condition of the nervous system or an impoverished state of the blood, galvanism is the best mode of treatment, and that it will give relief in more cases than any other agent.

Treatment was applied once a week for a month, and then a few days before menstruation for a few times, as follows: A Law battery of sixty cells is employed, and the electrode used resembles an ordinary uterine sound. For the abdomen Dr. G. uses a copper electrode, about four by six inches, and covers it with fresh absorbent cotton for each patient. The uterine electrode is connected with the negative cord, and inserted into the cervical canal as far as it will go without pressure, and the current turned on until fifteen or twenty milliamperes are reached. Care should be taken that the point of the sound does not rest against the fundus. Five or six minutes is long enough for each application. Antiseptic precautions are observed throughout.

The following advantages, according to the author, may be claimed for this mode of treatment:

1. Patients will submit to electrical treatment when an operation would be declined.

2. It can be carried out in the physician's office without an anesthetic, as it is attended by very little, if any, pain.

3. Any physician with the necessary appliance and moderate knowledge of gynecological work can apply the treatment without assistance.—*Southern Medical Record.*

THE CARE OF THE PERINEUM IN HEAD-LAST DELIVERIES.—In the *Centralblatt für Gynäkologie* for May 15th, Dr. W. Rubeska, a professor in the Prague school for widwives, remarks upon the paucity of directions in the text-books of obstetrics as to the management of the perineum during the birth of the after-coming head. He quotes a description, by Ostermann, of Berlin, of his method, and then gives an account of his own, which, he remarks, must often have been employed, so simple is it, although the first published description of it

appeared only so recently as in 1893, in his *Lehrbuch der Geburtshilfe für Hebammen.*

As soon as the child's mouth has cleared the vulva, whether extraction or expression has been employed, he seizes its feet with one hand and lifts it high over the mother's abdomen. Then with the other hand he manipulates the head, stretching the fingers out over the perineum and inserting the thumb into the child's mouth in such a manner as to have it rest on the alveolar arch of the upper jaw. The hand thus has perfect control of the head, the thumb holding it back forcibly if it shows a tendency to advance faster than the elasticity of the perineum warrants, while at the same time the outstretched fingers press the cranium forward against the pubic arch, and thus relieve the perineum of its tension. If the greatest circumference of the head has been expelled, the hand readily lifts the head out independently of the pains.

Since the child has its mouth and nose free, it can breathe, and, in case of need, the mucus may be swabbed from its mouth and throat with a flexible catheter; consequently there is usually no longer any occasion for haste in extracting the head. At this time there is no need of traction on the head; the abdominal muscles will drive it out, or it may be lifted through the vulva with the hand. The author thinks his method has the advantages over Ostermann's of simplicity and ease of execution, also that of not requiring the co-operation of the nurse or other assistant. He recommends it on the strength of a large experience.—*New York Medical Journal.*

Duration of Infection In Whooping-cough.—Weill, who in 1894, expressed the opinion that whooping-cough is contagious only during the premonitory catarrhal stage, has since put his opinion to the test. On various occasions he permitted nearly one hundred young children, who had not previously suffered from whooping-cough, to be associated in the same ward, for twenty days or more, with children suffering from the disease during the stage of whooping. In only one case was the disease contracted, and in this instance the patient from whom the in-

d was in the very earliest period of the whoop-
ree small epidemics Weill was able to satisfy
tion was contracted from children who had not
oop. He concludes that infection ceases very
aracteristic whoop commences, and that, there-
it is not the patient who is already whooping,
nd sisters who have not previously had whoop-
ught to be isolated.—*University Med. Journal.*

LARIAL TOXEMIA, ITS PREVALENCE IN NEW
SES AND TREATMENT BY ALTERATIVES—It is
here to dwell upon the many manifestations
nic malarial toxemia, nor to appeal to the evi-
statistics in proof of the great number of these
New York City. The numerous excavations
rection of buildings, the turning over of soil
lden from sunlight, the blasting of rock, etc.,
in establishing conditions which develop the
a whose influence all physicians are sooner or
to combat. We do not know positively when
the pathogenic organisms exist outside of the
qually uncertain as to their mode of entrance,
ooking on the respiratory organs as principally
ncerned. Be this as it may, symptoms present
do not yield to quinine, nor to Warburg's
that they are palliated, not cured, recurring
and the same result being attained and a like
rring to the individual upon a new exposure.
that quinine is a *sine qua non* in the treatment of
s administered during the intermission or remis-
exacerbation, but it is in those types which
ronic form, and especially the anemia present,
all attention to.
nt of these conditions I have used Barclay's
de of gold and arsenic (Arsenauro) with the
results. My attention has been repeatedly
tion, and its companion, liquid bromide gold,
ry (Mercauro), but like most of my colleagues

I did not realize their efficacy until I had put them to a crucial test. This I have done in a large number of cases, extending over a period of twelve months. At first I made the common error of discontinuing their use too soon. We must push them as we do iodide of potassium—to the point of toleration. In persons who could not take Fowler's Solution these combinations, as presented, were readily borne, the irritant effect of the arsenic being overcome. It is well to administer these solutions largely diluted, giving them in a half goblet of water if possible, and keeping the patient near the point of toleration for at least six weeks. Preference should be given to the mercurial combination in malarial anemia and malarial cachexia and splenic enlargement. In masked intermittents, or "malarial larvata," quinine is useless, but I have demonstrated to my satisfaction the value of liquid arsenii et. auri bromide (Arsenauro). I have recently used these solutions in other conditions requiring alteratives and my results have been most satisfactory.

I particularly emphasize the point that these solutions must be continued for a reasonable length of time. In many cases improvement does not manifest itself promptly. Arsenauro and Mercauro are in no wise palliatives. One bottle may apparently give no result. Palliatives never affect structures, but only functions. The organic changes remain just the same, no matter how long palliatives are administered. "This is according to therapeutic law to which there are no exceptions, that any drug whose specific medicinal effects can be secured by one dose (or a few doses) cannot modify or affect a structural change." I refer to these principles of therapeutics here because I wish to emphasize my assertion that these solutions are not palliative, but curative.—*J. P. Sheridan, M.D., of New York, in Med. Times and Register.*

THE ORIGIN OF URIC ACID.—Ever since physicians, aided by physiological chemists, learned to recognize the existence of uric acid as a factor associated with, and presumably causing, certain diseases, such as gout, the great question of its source of production has been before the profession. Quite recently it has become more or less the fashion to regard uric acid as a product

manufactured exclusively outside the body and as introduced ready made in certain articles of diet, notably meat.

It is odd, to say the least of it, that this view should have obtained such general acceptation, seeing that not even those who are responsible for its inception are able to state that they have ever discovered uric acid in the blood or tissues of healthy animals, and the evidence all goes to prove that uric acid is never a normal constituent of the blood or tissues of the healthy animal.

These observers base their views on the facts that bodies of the xanthin class are discoverable in the tissues, and these, they profess, on somewhat inadequate grounds, to regard as the equivalent of uric acid. This question crops up once more anent the treatment of gout by a diet exclusively composed of red meat, associated with the daily ingestion of large quantities of hot water.

It may be conceded that great benefit attends this treatment, at any rate in certain cases of gouty arthritis, but this does not help to solve the problem of its action, though it must be singularly disconcerting to those who regard the disease as one directly due to the excessive ingestion of the acid in meat. There is reason to believe that gout owes its causation to more complex factors than its students are apt to believe.

It is impossible to gainsay the evidence in favor of the tendency of a too starchy diet to favor the formation of uric acid, an influence which has been ascribed to the affinity of amylaceous food for oxygen, thereby interfering with the due oxidation of the nitrogenous ingesta. It may well be said that it is the interaction of the various articles of diet that promotes the formation of the peccant material, though how these chemical changes come to pass is a question which still awaits elucidation at the hands of the physiologist.

Judging by the results obtained by practitioners of both schools, there must be some truth underlying both hypotheses, and it remains to eliminate the perplexities and to arrive at a proper understanding of the chemico-physiologic processes which govern the production and absorption of the acid.

The problem is one of the greatest interest, but it would be rash to predict that we are within measureable distance of its elucidation.—*Med. Press and Circular*,

THE METHODS OF QUACKS.—The *Sanitarian* quotes *The Christian Advocate* as saying: "One of the most amusing, and at the same time sad things, is to see certificates published in religious papers and others, signed by men certifying that they have been cured of disease by a contrivance or a medicine which is an infallible cure for the maladies spoken of, when to our certain knowledge the signers of the said certificates died subsequently of the same disease. We have noticed fifteen cases of as many different remedies, which in corroboration of this statement we could publish were it not for the grief it would give the bereaved, and were we to publish them without the names the vendors would deny the facts."

STRANGULATED HERNIA is an accident which belongs to no especial period of life, and whether it occurs in youth, in old age, or in early infancy, there is no palliation, no compromise; one indication and only one exists, and that is to reduce the hernia—by gentle taxis (very, very gentle), when this is possible, and, when not, by cutting the constriction. There are five locations where hernia commonly occurs: the two groins, the two femoral regions, and at the navel.—*International Journal of Surgery*.

EATING WHEN FATIGUED.—Every one should know that to eat when tired is to place upon the digestive organs a burden which they are wholly unable to carry. When the body is in a state of fatigue, the digestive organs are unable to perform their natural functions; the glands of the stomach will not form gastric juice; the saliva is deficient in quantity; and the whole digestive apparatus is incapable of doing efficient work. When exhausted, one should rest before eating. If a faint or "all gone" sensation is experienced, relief may be obtained by drinking a glass of hot water or diluted fruit juice of some sort.—*Dietetic Gazette*.

THE HORSE CHESTNUT AS A REMEDY FOR HEMORRHOIDS.—The *Therapeutische Wochenschrift* attributes to Artault the dis-

tnut, the seed of *Æsculus Hippocasta-*
uid extract, exerts a prompt remedial
orrhagic attacks of hemorrhoids. He
lure in twenty-one cases, and in only
fect observed. In these two, a recur-
ok place about ten days after its cessa-
ula is given :

e-chestnut.....1 oz.
.....5 drops.

1 drops, to be taken in a glass of wine or
before eating.

rrhage the following day may be sub-

e-chestnut.....5 drachms.
amelis.....2½ "
....2 drops.
twice a day.

—*N. Y. Medical Journal.*

Editorial.

CALENDAR FOR AUGUST.

as apprehended that the heated month of
and that the attendance would materially
ennial, such has not been the case. The
capital city was fully maintained, and with
on the 3rd (which was observed in lieu of
), the children's grand musical festival on
eople's Union two days later, and the Innes
ys of the month with his magnificent por-
Peace, together with frequent special and
the third month of the Centennial season
essors, and the mangement, the directory,
on are well pleased indeed.
during the month not only gave a most
its greater portion, but refreshed and enli-
the grounds with its gorgeous green tints,

only to be seen in this land of blue-grass, developed the grand conceptions of the horticulturist's art, with rich and beauteous colors on every side, and now nature, science, mechanics and art all seem to vie with each other in leaving nothing to be desired in the grand display of the "Volunteer State" on attaining its century of existence.

With the current month it is confidently anticipated that the attendance will not only steadily increase, and the following are some of the special attractions, which with many others of both special and general interest not yet fully determined, but well under way, will give those who come no cause for regret. The music in the Pavillion, the Auditorium, the Woman's Building and elsewhere, the military encamped on the spacious grounds, Vanity Fair and its numerous attractions all prove fitting adjuncts for amusement and recreation.

August 3-5. Stenographer's Centennial Association, W. B. Shearon, Secretary, Nashville, Tenn.
4. Stenographer's Day.
7. Monteagle Day.
8-15. Washington Artilery, of New Orleans, and Governor Louisiana and Staff.
9. Davidson County Court Day.
10. Louisiana and New Orleans Day.
12. Louisville's Red Men's Day.
Centennial Negro Employes' Day.
17. Cotton Day.
17. Crockett Clan, Mrs. Anna B. Tuck, Secretary, Plymouth, Ill.
17. Daughters of America, Auxillary to the Junior Order United American Mechanics; Miss Julia Tipton Dennison, O.; M. C. Trollinger, Nashville, Tenn.
17. Webb's School Day.
17-18. Mississippi Valley Cottonwood Association.
18. Hoo-Hoo Day.
17-18. Lumber Manufacturers' Association.
18-19. National Conference of State Boards of Health, C. O. Probst, M.D., Columbus, Ohio.
19. Texas Negro Day.
24. United Presbyterian Day; J. P. Tracy, Eastwood Ave., Station I, Chicago, Ill.
24. Enquirer Household Club, S. F. Casey, Jr., Care of Enquirer, Cincinnati, Ohio.
24. National G. L., United Brothers of the Cross and Sisters of the Mysterious Ten.
26. Woodman's Day.
28. Sigma Chi Day.
30. Iowa Day.

DOCTOR: Your library is not complete without the *Hypnotic Magazine*. Cost of this handsome monthly, including premium book on Suggestive Therapeutics, is only one dollar a year. Send for sample copy. Address The Psychic Publishing Company, 56 Fifth Avenue, Chicago.

STUDY OF THE AMERICAN MEDICINAL FLORA.

The Sub-Commission of the Pan-American Medical Congress appointed to study the medicinal plants of the United States has entered into an association with the Smithsonian Institution for that purpose. The attention of our readers is called to the respective circulars issued by these organizations, which we print below:

SMITHSONIAN INSTITUTION, Washington, D. C., May 28, 1897.

Dear Sir: The Smithsonian Institution has undertaken to bring together all possible material bearing on the medicinal uses of plants in the United States. Arrangements have been made with a body representing the Pan-American Medical Congress, the Sub-Commission on Medicinal Flora of the United States, to elaborate a report on this subject, and the material when received will be turned over to them for investigation.

The accompanying detailed instructions relative to specimens and notes have been prepared by the Sub-Commission.

All packages and correspondence should be addressed to the Smithsonian Institution, Washington, D.C., and marked on the outside "Medicinal Plants, for the United States National Museum."

Franks which will carry specimens, when of suitable size, together with descriptions and notes, free of postage through the mails, will be forwarded upon application. Should an object be too large for transmission by mail the sender is requested, before shipping it, to notify the Institution, in order that a proper authorization for its shipment may be made out.

Respectfully,

(Signed) S. P. LANGLEY, Secretary.

INSTRUCTIONS RELATIVE TO MEDICINAL PLANTS.

The Pan-American Medical Congress, at its meeting held in the City of Mexico in November, 1896, took steps to institute a systematic study of the American medicinal flora, through the medium of a General Commission and of special Sub-Commissions, the latter to be organized in the several countries. The Sub-Commission for the United States has been formed and consists of Dr. Valery Havard, U. S. A., Chairman; Mr. Frederick V. Coville, Botanist of the U. S. Department of Agriculture; Dr. C. F. Millspaugh, Curator of the Botanical Department of the Field Columbian Museum, Chicago; Dr. Charles Mohr, State Botanist of Alabama; Dr. W. P. Wilson, Director of the Philadelphia Commercial Museums; and Prof. H. H. Rusby, of the New York College of Pharmacy. This Sub-Commission solicits information concerning the medicinal plants of the United States from every one in a position to accord it. The principal points of study are as follows:

1. Local names.
2. Local uses, together with historical facts.
3. Geographical distribution and degree of abundance in the wild state.

4. Is the plant collected for market, and if so,
   (*a*) At what season of the year?
   (*b*) To how great an extent?
   (*c*) How prepared for market?
   (*d*) What is the effect of such collection upon the wild supply?
   (*e*) What price does it bring?
   (*f*) Is the industry profitable?

5. Is the plant, or has it ever been, cultivated, and if so give all the information on the subject, particularly as to whether such supplies are of superior quality, and whether the industry has proved profitable.

6. If not cultivated, present facts concerning the life history of the plant which might aid in determining methods of cultivation.

7. Is the drug subjected to substitution or adulteration, and if so, give information as to the plants used for this purpose.

While it is not expected that many persons will be able to contribute information on all these points concerning any plant, it is hoped that a large number of persons will be willing to communicate such partial knowledge as they possess.

It is not the important or standard drugs alone concerning which information is sought. The Sub-Commission desires to compile a complete list of the plants which have been used medicinally, however trivial such use may be. It also desires to collect all obtainable information, historical, scientific and economic, concerning our native and naturalized plants of this class, and, to that end, invites the cooperation of all persons interested. Poisonous plants of all kinds come within the scope of our inquiry, whether producing dangerous symptoms in man, or simply skin inflammation, or as "loco-weeds," deleterious to horses, cattle and sheep. In this respect, the general reputation of a plant is not so much desired as the particulars of cases of poisoning actually seen, or heard from reliable observers. It is believed that much interesting knowledge can be obtained from Indians, Mexicans and half-breeds, and that, consequently, Indian agencies and reservations are particularly favorable fields for our investigation. Such knowledge will be most acceptable when based upon known facts or experiments.

In order to assist in the study of the habits, properties and uses of medicinal plants, the Sub-Commission undertakes to furnish the name of any plant specimen received, together with any desired information available.

Owing to the diversity in the common names of many plants it will be necessary for reports, when not furnished by botanists or others qualified to state the botanical names with certainty, to accompany the same with some specimen of the plant sufficient for its identification. While the Sub-Commission will endeavor to determine the plant from any portion of it which may be sent, it should be appreciated that the labor of identification is very decreased, and its usefulness increased, by the possession of complete material, that is, leaf, flower and fruit, and in the

case of small plants, the underground portion also. It is best to dry such specimens thoroughly, in a flat condition under pressure, before mailing. While any convenient means for accomplishing this result may be employed, the following procedure is recommended. Select a flowering or fruiting branch, as the case may be, which, when pressed, shall not exceed sixteen inches in length by ten inches in width. If the plant be a herb two or three feet high, it may be doubled to bring it within these measurements. If it possess root leaves, some of these should be included. Lay the specimen flat in a fold of newspaper and place this in a pile of newspapers, carpet feiting, or some other form of paper which readily absorbs moisture, and place the pile in a dry place under a pressure of about twenty to thirty pounds, sufficient to keep the leaves from wrinkling as they dry. If a number of specimens are pressed at the same time, each is to be separated from the others by three or four folded newspapers or an equivalent in other kinds of paper. In twelve to twenty-four hours these papers will be found saturated with the absorbed moisture and the fold containing the specimen should be transferred to dry ones. This change should be repeated for from two to five days according to the state of the weather, the place where the drying is done, the fleshiness of the specimens, etc. The best way to secure the required pressure is by means of a pair of strong straps, though weights will do. The best place for drying is beside a hot kitchen range. When dry the specimens should be mailed between cardboards or some other light but stiff materials which will not bend in transit.

It is a most important matter that the name and address of the sender should be attached to the package, and that the specimens, if more than one, should be numbered, the sender retaining also specimens bearing the same number, to facilitate any correspondence which may follow. The Sub-Commission requests that, so far as practicable, all plants sent be represented by at least four specimens.

(Signed) H. H. Rusby, M.D.,
Chairman of the General Commission,
New York College of Pharmacy.

Valery Havard, M.D.,
Chairman of the Sub-Commission,
Fort Slocum, Davids Island, New York.

It Quiets Pain and Promotes It.—Rather a paradoxical statement. True, nevertheless. When pain is useless, then antikamnia quiets it; when it is necessary, the same remedy increases it. This refers to the use of antikamnia in the pains of labor and as a promoter of labor pains.

H. C. Reemsnyder, A.M., M.D., of Philadelphia, in a recent article says that whenever there is unnecessary pain in labor he administers ten grains of antikamnia, repeated in two hours, if necessary. In this way the pain which annoys the woman without helping her is relieved, while the uterine contractions become more firm and labor is accelerated.

Dr. R. B. McCall, Hamersville, Ohio, contributes to the *Woman's Medical Journal* on this same subject. He says: "In cases marked by unusual suffering in second stage, pains of nagging sort, frequent or separated by prolonged intervals, accompanied by nervous rigors and mental forebodings, one or two doses, five grains each, of antikamnia tablets, promptly change all this. Indeed, in any case of labor small doses are helpful, confirming efforts of nature and shortening duration of process."

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The next meeting will be held in Louisville on October 5, 6, 7 and 8, 1897.

All railroads will offer reduced rates.

The President, Dr. Thos. Hunt Stucky, and the Chairman of the Committee of Arrangements, Dr. H. Horace Grant, promise that the meeting will be the most successful in the history of the Association, and this promise is warranted by the well-known hospitality of Louisville and Kentucky doctors.

Titles of papers should be sent to the Secretary,

DR. H. W. LOEB,
3,559 Olive Street, St. Louis, Mo.

A letter from the Secretary, of July 22nd, has the following:

"The Executive Committee met recently at Louisville, in conjunction with the local Committee of Arrangements, the following being present: Drs. Stucky, Grant, Mathews, Love, Holloway and Reynolds. It was determined to make the coming meeting the largest and best in the history of the Association, and everything points to a fulfillment of this endeavor. The railroads will make a round-trip rate of one and a third fare, or probably one fare. The address on Surgery will be delivered by Dr. J. B. Murphy, Chicago; the address on Medicine by Dr. John V. Shoemaker, Philadelphia."

COMPETITION FOR THE SENN MEDAL.—Pursuant to a resolution adopted by the Section of Surgery and Anatomy of the American Medical Association, June 4, 1897, I have been appointed by the Chairman, Dr. Reginald H. Sayre, as chairman of the committee charged with the awarding of the Senn Medal for 1898. The other members of the committee are Drs. H. O. Walker, of Detroit, Mich., and S. H. Weeks, of Portland, Me.

1. A gold medal of suitable design is to be conferred upon the member of the American Medical Association who shall present the best essay upon some surgical subject.

2. This medal will be known as the Nicholas Senn Prize Medal.

3. The award shall be made under the following conditions: *a*. The

name of the author of each competing essay shall be enclosed in a sealed envelope bearing a suitable motto or device, the essay itself bearing the same motto or device. The title of the successful essay and the motto or device to be read at the meeting at which the award is made, and the corresponding envelope to be then and there opened and the name of the successful author announced. *b.* All successful essays become the property of the Association. *c.* The medal shall be conferred and honorable mention made of the two other essays considered worthy of this distinction at a general meeting of the Association. *d.* The competition is to be confined to those who at the time of entering the competition, as well as at the time of conferring the medal, shall be members of the American Medical Association. *e.* The competition for the medal will be closed three months before the next annual meeting of the American Medical Association, and no essays will be received after March 1, 1898.

Competitors will address their essays to the undersigned.

J. McFadden Gaston, M.D., *Chairman.*

1½ Edgewood Avenue, Atlanta, Ga.

McIntosh Battery and Optical Company have just issued the eighteenth edition of their catalogue of electro-therapeutic appliances, in which they have made a radical change in the matter of prices and discounts—giving only *one* price, their lowest, which is far more satisfactory than a given price with so much off. Their line of appliances, batteries, etc., is very full and complete. As for the character of their manufactures, we can only say we want no better, as we find them the very best. More than a dozen years we have been using their batteries, and have found them most excellent. Write them at 521 Wabash Avenue, Chicago, Ill., for a copy of their late catalogue.

Vivisection.—At a recent meeting of the Nashville Academy of Medicine strong resolutions were adopted and forwarded to the members of Congress from this district condemning and protesting against Senate Bill 1063, a bill entitled "For the further prevention of cruelty to animals in the District of Columbia."

The bill has been opposed by the American Medical Association at its last meeting, and by all important scientific bodies in the United States. Among the important reasons given are the following:

1. Further legislation is unnecessary, the provisions of the existing law being sufficient to entirely prevent such cruelty as is mentioned in the bill. The promoters of the bill do not attempt to show that any cruel or unnecessary procedures have been, or are being, performed within the District.

2. The voice of science and medicine is opposed to legislation of any kind which would take, in any measure, the direction or control of experimental medicine and physiology out of the hands of those who, on account of their special fitness, have been chosen by the authorities of our higher institutions of learning and of research to convey instruction and to conduct investigations at those institutions.

Ulcerative Conditions.—Dr. R. H. Baylor, Stewart, Tenn., in reporting his experience with Sennine as an antiseptic and germicide dressing as well as stimulating healthy granulations on an ulcerative surface says: "There is nothing further desired in the antiseptic line" and he has accomplished pre-eminently satisfactory results in ulcerative conditions where everything else had failed. Sennine is easily applied—a clean dressing and permanent relief in a short time.

Dioviburnia.—The most powerful and trustworthy uterine tonic attainable (*eminent gynecologists bear testimony to this*) in Dysmenorrhœa, Amenorrhœa, Menorrhagia, Leucorrhœa, Subinvolution, Threatened Abortion, Vomiting in Pregnancy, Chlorosis, etc.

Sanmetto a Standard Medicine.—I have had occasion to use a considerable quantity of Sanmetto in bladder and urethral troubles, and have so far invariably found it equal to the occasion. It is assuredly as much a specific for the various ailments of the bladder and its appendages as quinine is for ague. That is saying a great deal, but it is true. Sanmetto is certainly a standard medicine, and deserves every confidence of the physician. I shall continue to use it in my practice with perfect confidence in its great merit. Jas. T. Atchison, M.D.
Lochland, Ky.

Palbebrine.—A most reliable remedy in External Eye Diseases. Highly recommended in Simple, Acute and Chronic Catarrhal, Venereal, Blenorrheal and Strumous or Scrofulous Conjunctivitis, Marginal Blepharitis and Inflammation of the Lachrymal Sac. Sample of Palpebrine mailed free.

Imperial Granum.—The following letter, just received by the Imperial Granum Company from the publisher of one of the most influential of American medical journals, must certainly be most satisfactory to the manufacturers of that Sterling food preparation:

"Beginning with the grip, I ended up with a severe attack of gastric fever. This gave me an excellent opportunity to test Imperial Granum, and I assure you it was a great pleasure to have something that was once so pleasant to the taste, so nourishing, and so grateful to a delicate stomach. After being compelled to abstain from food for three or four days, I partook of the Imperial Granum quite freely, without the least disturbance of the stomach. As we have had much experience in dealing with delicate and sensitive stomachs, we thought it very remardable that any food should prove so nourishing and yet could be taken so freely under such circumstances. I was glad to have such an opportunity to test your food, and I shall always be glad to recommend it."

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

NEUROSINE.—The standard neurotic, anodyne and hypnotic. Unexcelled in hysteria, epilepsy, neurasthenia, mania, chorea, uterine congestion, migraine, neuralgia, all convulsive and reflex neuroses. Neurosine contains no morphine or chloral.

MEDICAL COLLEGE ANNOUNCEMENT.—This is the season in which the land is flooded with the annual publications of the various medical schools; and while our readers will have ere this doubtless received quite a number, we would respectfully request that due consideration be given to those emanating from this city. The three excellent and well equipped medical shools of Nashville are especially deserving, and our readers in either North or South, will find that nothing is left undone by them to fully qualify all who matriculate in the best manner possible with the important truths and principles of the healing art.

The clinical facilities offered by our City Hospital, of convenient access to all the school here, together with the free college dispensaries leave nothing to be desired in this line; and so far as laboratory work is concerned all are well and satisfactorily equipped.

Nashville has long enjoyed a reputation as an important centre for obtaining a first-class medical education; and our college men now in harness will see that it is well maintained.

WE ARE GRATIFIED indeed to state that with the steady and continued success of this journal, the current year has been the most satisfactory in

its history. The number of paid subscriptions this year have far exceeded any that have preceded it. Well, feeling good over the matter, we hope our many friends will pardon our allusion thereto.

NOTWITHSTANDING the marked increase of our population and the great influx of visitors during the Centennial season, the health of this city has been generally most excellent. Its weekly mortality rate being quite low indeed, and will compare favorably with other localities.

SENNINE.—The new American antiseptic, unexcelled as a dry dressing. Entirely odorless. A specific in old sores, ulcers, bubo, eczema, pruritus, burns, scalds, etc. Sample of Sennine mailed free.

"ABOUT CHILDREN" is the title of a book soon to be issued by the Medical Gazette Publishing Company. The author is Samuel W. Kelley, Professor of Diseases of Children in the College of Physicians and Surgeons. The little volume comprises six lectures delivered before the nurses in the Training School of the Cleveland General Hospital and is filled with material of interest, not only to the nurses but medical students and practitioners as well. Advance orders will be filled in September.

Reviews and Book Notices.

TEXT-BOOK ON MENTAL DISEASES. By THEO. H. KELLOGG, A.M., M.D., late Medical Superintendent of Willard State Hospital, etc., etc. Octavo, 792 pages, illustrated by original sphygmographic tracings and photographs of the different types of mental disorder. Extra muslin, $6.00. New York. WILLIAM WOOD & COMPANY. 1897.

It is many years since an original American work on this subjct has appeared, and this is the more surprising since the science of mental diseases is one that advances more rapidly. The present treatise aims to be a practical guide to the diagnosis and treatment of all the various types of insanity met with. While reflecting a knowledge of all the relevant psychological facts of recent English or foreign literature, the book is, above all, a practical treatise written for the use of practitioners and students of medicine. Dr. Kellogg's long experience while

nt positions in large hospitals for the insane, rivate, as well as during many year's private atment of mental affections in New York City, degree qualified him for the preparation of a ect. A table of contents and a copious index to the matter contained in the volume. The cellent guide to the diagnosis and treatment of pes of insanity with which the physician has to hospitals and private practice, and will also f ready reference for psychiatrists, in the emer- specialty. Parts of the work will merit the sychologists and all who are interested in the pathology.

rk is written independently of leading philoso- hypotheses, and is the clinical rendition and f the writer's experience while in charge of hospitals for the insane, or in practice in New ll and complete index completes the volume.

de for the Busy Practitioner, by HEINRICH STERN, loth, pp. 61. E. P. PELTON, Publisher, 129 Fifth k. 1897.

of this little book—thoroughly practical and e—is to aid the busy practitioner in his routine ise and clear, and will be found exceedingly e pages are left blank, in which may be entered las, etc., germaine to the adjacent subject

DISEASES OF WOMEN, by CHAS. B. PENROSE, M.D., r of Gynecology in the University of Pennsylvania; Gynecan Hospital, Philadelphia. 8 vo., cloth, pp. W. B. SAUNDERS, Publishers, 925 Walnut Street, 1897. Price, $3.50 net.

his preface says:

en this book for the medical student. I have ent the best teaching of modern gynecology, antiquated theories or methods of treatment. nstances, recommended but one plan of treat-

ment for each disease, hoping in this way to avoid confusing the student or the physician who consults the book for practical guidance. I have, as a rule, omitted all facts of anatomy, physiology, and pathology which may be found in the general text-books on those subjects. Such facts have been mentioned in detail only when it seemed important for the elucidation of the subject, or whether there were certain points in the pathology that were peculiar to the diseases under consideration."

Yes, it is a clean cut, clear and concise statement of the practical developments of gynecology as accepted to-day. As this important department has been undergoing such a remarkable revolution in recent years, it was well to limit this text-book to the accepted facts and practical details, throwing aside and excluding the many fallacies and vagaries of former years. Narrowing down the measures of treatment to those regarded as the most opportune by this able author and teacher, will also prove beneficial to the student, as well as the practitioner who may consult the volume in his daily routine. We can and do most heartily commend this treatise to our readers.

LECTURES ON THE TREATMENT OF FIBROID TUMORS OF THE UTERUS, Medical, Electrical and Surgical. By FRANKLIN H. MARTIN, M.D., Professor of Gynecology Post-Graduate Medical School, of Chicago; Surgeon to Woman's Hospital, of Chicago, etc. W. T. KEENER Co., Publishers, Chicago. 1897.

Dr. Martin has an acknowledged standing with the foremost gynecologist of the day, and as he states in his preface to this little monograph has devoted the greater part of his professional time in the last ten years to the minor measures of relief from uterine fibroids, such as the use of ergot, electricity, the Battey-Tait operation and ligation of the broad ligaments, as well as the major surgical procedures. "The object of these lectures," he says, "is to place in permanent shape the outcome of this decade of work, and to place it in the hands of his friends and students as a memoir, as it appears to him, of the present status of the treatment of fibroids of the uterus." A little more care in proof-reading, which to some extent, mars the appearance is suggested for future editions of so excellent a presentation of this important subject.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

Vol XIX. NASHVILLE, SEPTEMBER, 1897. No. 9.

Original Communications.

DUTY TO THE INSANE.*

BY BARTON W. STONE, M.D., NASHVILLE, TENN.
Superintendent Morningside Retreat.

"THE Lord said unto Cain, Where is Abel, thy brother? And he said, I know not: am I my brother's keeper?"

It may be questioned upon economic grounds whether it is the duty of a community to care for its sick poor who are not insane, but it is certainly true that when the pauper becomes insane the public should provide for him. There is an ancient adage that "the insane poor are the wards of the State." The violent *must* be cared for as a matter of public protection, and so the pyromaniac and the insane rapist. When not violent, it is

*Read before the Tennessee State Medical Society at Nashville, Tennessee, May, 1897.

wise policy to provide for all insane in the acute stage of their disease while it may be remediable, lest they become a perpetual and expensive charge upon the State.

Philanthropy goes further, and answers affirmately the question, "Am I my brother's keeper?" and, on the ground of a universal brotherhood, recognizes the claim of every insane person to the best medical and moral management obtainable. The claim becomes a pathetic appeal by the reflection that misfortune and not crime has deprived the insane of the ability of consulting their own best interests. The poor and the well-to-do should have equal protection. In Kentucky the law operates slightly to the advantage of the pauper in gaining admission to the asylums. In Tennessee pay patients have the advantage. They are here generally admitted immediately upon application, while the law compels the paupers to wait for a vacancy if the quota of patients apportioned to their respective counties has already been admitted to the asylum.

I am glad to do honor to Tennessee for the adequate financial provision she has made for the maintenance of the asylums. All honor to the enlightened members of the recent State Legislature for refusing to reduce the maintenance fund *per capita* below the rate at which the patients can be made comfortable and full remedial service given them.

When denied admittance to the asylums under State management, the insane poor are remanded to the care of the county poor-houses. I do not believe they can be properly cared for in these places. The plan was tried and abandoned in New York, and that State can boast of as well-conducted poor-houses as may be found anywhere.

I shall hail the day when Tennessee shall recognize that it is her duty — as I am sure it is — to care for all her insane poor inside the State institutions, removing those now confined in the county poor-houses. To make sufficient room for all of them, each of the asylums of the State must be more than doubled in its capacity for caring for patients. They are now comparatively very small State institutions.

The presence of an insane person at large in a community is not only a menace to peace, life and property, but the mental and moral effect upon the sane is generally deleterious. It is

especially so with undeveloped minds of youth and child-bearing women. Indeed, it would be best, as far as practicable, if all permanently defective classes could be placed outside the pale of general public intercourse; but we may never look for such Utopian condition. The sociological question as to the separation of the insane in order to prevent their marriage and the propagation of defective progeny is worthy of serious consideration.

A common failure in duty to the insane consists in the too frequent neglect to remove them from home as promptly as possible after testing the efficacy of home treatment and finding it to be futile. Here is where the poor often have the advantage of the wealthy insane. Poverty often compels the family to promptly commit an insane member to the asylum, when the rich attempt to keep their insane at home, in-doors, at great expense for treatment and nursing. They are too often confined as skeletons in the closets, where they remain until past hope of benefit from proper moral and medical management. It is probably impossible for the State to reach cases like these, but it is her duty in some way to guard the interests of these helpless subjects, and remove them from the control of their misguided natural guardians. Much may be done to educate the people in regard to their duty to their insane relatives, and the importance of their prompt treatment. Let it be known that insanity is a disease, and one that attaches no more odium to its victim than any other disease. Keep the asylums comfortable and in proper hands, and then protect the reputation of the institutions and the faithful physicians in charge by discountenancing the sensation mongers whose pet victim is the lunatic asylum. When the people learn that the asylums are not institutions for the torture of its defenseless inmates, timely commitments of the insane to their wards may be expected.

The physicians of the State can do more than any other class to overcome the general prejudice which exists in regard to the management of asylums. The deepest interest of the insane population demands that they should do so; and the mere fact that the members of the medical corps of the asylums occupy public official positions does not lessen their title to that fraternal courtesy and honorable treatment conferred by the Code of Ethics upon all members of the medical profession.

I want to say that these physicians often do not get the protection from the ranks of the profession which is given the private practitioner of medicine. Without fear of arraignment before any board of medical censors, the statesman-doctor, with the profitless clientele, employs the methods of the political bummer to undermine the reputation of the physician in political position in order to get his shoes. The same methods employed by the private practitioner to secure patronage would subject him to expulsion from any medical society.

When an individual becomes insane, it is often in the power of the physician to promptly remove the cause of insanity, and by active, judicious management, medical and moral, to restore the patient. This *may* be accomplished in a short time; and it is always the duty of physicians and friends of the insane to make trial of the efficacy of home treatment in every case where the violent and destructive tendencies of the patient may be guarded against. The exception to the rule is where the indications point to the existence of one of the inveterate forms of disease and a protracted attack. The prognosis may often not only be perfectly clear from the nature of the disease, but equally so from the character of the delusion.

In managing cases of insanity, however, outside the asylums there are often employed for their relief measures which may even have a baneful influence. For example, the use of hypnotics (sometimes beneficial) often paralyses intellectual activity and tends to fasten insanity. I am very sure that I have repeatedly done great harm in the treatment of insane people by the continuous use of medicines like chloral and the bromides, especially. Where it seems to be necessary to use them, it is important to employ tonics, especially heart tonics, coincidently. Chloral, especially, should never be long employed in any given case. It is seldom that a patient becomes fatally exhausted from lack of sleep, and it is surprising how little sleep may seem to suffice for a reasonable degree of comfort and well-being. It is frequently much better to allow an insane person to lie all night without sleep than to administer soporifics. The less injurious hypnotics are trional, sulphonal, cannabis indica, hypnol and duboisin. (I learned the value of the last medicine from the staff of the Central Tennessee Asylum. They usually combine it with morphine, which makes the effect more protracted.)

Where hypnotics fail to induce sleep promptly, there is a temptation to multiply the doses and increase their size. We should be warned that it has repeatedly occurred that fatal narcosis has resulted when sleep finally came. We have recently had at Morningside Retreat a case of narcosis (which had been induced by the abuse of narcotics before the patient was admitted) that required nine hours of the hardest work by all three members of our medical staff to save.

It is our duty to prevent the insane from starving themselves. This is hard to do at home, and very many melancholiacs have been allowed to die who might have recovered if they had been forced to take food. The ordinary methods of forcible feeding may be effectually done without pain if care is used. The use of the tube is rarely necessary. Patience and persistence are required in accomplishing the task. The use of any forcible measures to give food to insane friends is very repugnant to many persons. Some would even prefer they should die than to have them undergo the ordeal. The refusal of food occurs in a large per cent. (over 50 per cent.) of melancholic patients, and but for this serious complication many more melancholiacs would be managed at home, and doubtless more would become chronic cases, than if they were removed from home for treatment.

An important duty to the insane consists in preventing them from destroying property or doing any harm to themselves or to others. I have noticed that a lunatic who has attempted suicide, or one who has committed homicide or seriously injured anyone, is very apt to remain permanently insane. There are numerous exceptions to the rule, but it is so generally true that it should serve as a double incentive to watchfulness in all cases where the delusions indicate a homicidal or suicidal purpose. A curious but well-recognized fact is that the most significant suicidal delusion is that the subject fears he will be murdered; another fact is that patients who threaten suicide very seldom attempt it. The homicidal delusion is generally more difficult to discover than the suicidal. I had a patient — a paranoiac — who did not seem to be insane at all, but after being at the asylum two months he wrote his friends that his food was being regularly poisoned in order to kill him, but that he had eluded the poisoner up to the date of writing. The attendant then told me of a regular

habit of the lunatic to enter the dining-room first of all the patients after the announcement that meals were ready, and he had several times detected him in the act of stealthily exchanging the plate of food apportioned to him for that of some other patient. He probably did this at every meal. This showed that he apprehended poison and had a homicidal delusion; but the attendant thought he only made the substitution to obtain a more eligible ration, and did not suspect the delusion at all.

There are many paranoiacs at large in the country, and it is the duty of physicians to patients and the public to be on watch for them in order to give timely warning of possible tragedy.

The insane deserve more candid treatment from the public and physicians than is usually accorded them, and the lack of confidence the insane usually exhibit in promises made them and even their display of violence toward others are often the sequels of an uninterrupted series of deceptions practiced upon them from the moment they became insane. I have known a minister of the gospel tell a lie, apparently with good conscience, to an insane man. This course I believe to be uniformly injurious in its mental effect upon the insane; and every alienist has seen the marked salutary effect of a change to absolute sincerity in dealing with them. No promises made an insane person should be unkept, as they are almost invariably remembered. It is better to evade without compromise of truth than to promise anything which it is the purpose shall never be done.

In the same line is a very common, but very injurious, custom of talking to the insane as if they were imbeciles or children. Many insane people have keener perception than has the average sane person, and are often deeply insulted by well-meaning friends. Some insane estimate the gravity of their own mental condition from unwise speeches of their friends, and their hopes of restoration are correspondingly weakened. Talking to them just as if they possessed as much intelligence as any other person is a genuine mental tonic.

It has been laid down as a rule, with few exceptions, that no attempt should be made to remove delusions by argument. Such efforts are almost uniformly futile. It is easier to convince patients that the moon is made of green cheese. Argument seems to strengthen the delusion, increases excitement, and is very often

l. The theme of conversation with them should
lusion. This the patient should be led away
ible; and failing in this, we should refuse to
at the patient has to say in the line of his delu-

portant that no sign of fear should be exhibited
ence of an insane person. The effect upon the
nt is extremely depressing and deleterious, par-
often the case where fear is shown) the patient
ny demonstration of violence to call it forth.
more insulting to a lunatic than that he should
wild beast to be avoided, and, as a natural con-
ar is often the direct cause of an attack from
t.

r to restraints, diversions, and a multitude of
and hurtful, as well as lines of conduct and
o be observed, under varying conditions, toward
f careful reflection be given by the intelligent
stake will usually be made in arriving at the
rsue in managing individual cases.

d by alienists that the moral management of
as a most influential bearing in treatment, and
more important than the medicinal treatment.
, be recognized that discussions in the lines I
this paper are of much practical importance.

LOGY OF MALARIAL HEMATURIA.*

M. KRAUSS, M.D., MEMPHIS, TENN.

ions upon which this paper is based have been
e face of the most discouraging circumstances.
most never permitted, and even the abstraction
od is frowned upon as a most high-handed pro-

ast seven years, with the exception of last year,

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the Tennessee State Medical Society at Nashville,
97.

when I positively declined the honor, I have served as Chairman of the Committee on Medical Hematuria of the Tri-State Medical Association of Mississippi, Arkansas, and Tennessee. I terminated my committee labors on account of the lack of interest shown by those who were in the habit of seeing cases, despite the expense of time, labor, and money incurred. The committee reports were not published, and, as I had no copies of same, all the record details are lost. In our 1895 report we had prepared a tabulated statement of the frequency at different seasons, mortality, surroundings, special features, treatment, recurrence, and sequelæ, but this report, which was really to have been printed, was lost by the printer, and no copy exists.

Lately, through the generosity and scientific zeal of my friend Dr. Goltman, who proposes to expend enough money to enable us to see cases at a distance in person, I have again taken up the work, seconded by Dr. Goltman. We have seen two cases since then, and hope to be able to do enough work to bring an interesting report.

A discussion might be deemed premature at this time, but it was hoped that the deductions now presented would stimulate the profession to more interest in the work, and this paper is based upon observations and reports from nearly one hundred cases. True, the histories are not now at hand, but the pathology of the cases was fairly constant. I shall begin by giving a typical clinical history, and then a recorded history more in detail.

Dr. W. P. Barton, of Malone's Landing, in a paper, "Atypical Lysemia," gives as graphic an account of the course of the "disease" as I have ever seen. The literature from Southern writers, as a rule, affords nothing that would throw much light on hematuria. Barton says:

"A classical case has always for its history an active period of malarial intoxication eventuating in malarial cachexia more or less marked. This chronic state may be entirely a passive one, or may be disturbed periodically by active outbreaks. A rigor, either after one of these active periods or as the first variation for some time from the passive state, ushers in the disease. In the vast majority of these cases the rigor comes after the ingestion of some form of quinine. Partial or com-

plete cinchonism has been the rule in my experience. A desire to void urine generally follows the rigor very closely, and the characteristic urine is discharged. Even in typical cases this varies some in color, quantity and consistency, but usually it is of a pokeberry-juice color and rather free in quantity at the first discharge, and only a little more dense than normal urine; it afterward changes to a darker or lighter color, according to the tendency of the case, the quantity usually diminishing, unless affected by medication. The temperature usually reaches its height a few hours after the initial rigor, rarely going above 103°; and then steadily declines. The pulse rate is low, considering the degree of temperature, gaseous and labored in quality. Icterus appears in a few hours after the initial rigor, and deepens more or less until urine clears; then it begins to fade away; but if the case is to be fatal, it deepens until death supervenes. Nausea and vomiting generally appear a short time after the rigor, and persist more or less until urine clears, sometimes afterward. The tendency of the disease is to death in a majority of cases. In case of a fatal termination, all symptoms grow worse, urine thicker, darker and more scant; heart weaker and its action more labored, temperature either lower or higher, nausea often becoming distressing, icterus deepens, and great restlessness adds to the horror; the eyes, by reason of extreme jaundice, assume a frightful expression. Later, urine is suppressed, uremia sets up, and coma kindly eases the patient across the dark river. This is a typical case of lysemia. Its cause, if you will pardon the expression, is malarial poison run to seed."

The following is the condensed clinical report of a case reported by Kohlstock, in Berlin. It accords perfectly with some cases seen in the Mississippi Valley. The patient was a sergeant in the German colony in Eastern Africa, who was sent home on sick leave. There had been mild quotidian attacks, which, after several periods of immunity, terminated in a prolonged attack, which kept patient in bed for some weeks. On the way to Berlin he had some attacks, and, after a month's immunity and preceded by malaise, he had a hard chill, followed by high fever and sweat. This was repeated four times on successive days and accompanied by bloody urine. The symptoms on fourth day were headache, violent pains in liver and spleen, vomiting of

yellowish-green masses, vesical tenesmus, urine was dark brownish-red, specific gravity 1.030, slightly acid, containing hemoglobin; stools tarry; violent delirium. No marked icterus on that day; tongue coated grayish-yellow, temperature 97.6, pulse 72, slight bronchial catarrh, anemic murmurs, no cardiac lesion, spleen moderately enlarged, palpation of liver and spleen painful. Patient received twenty grains of quinine; at 9 p. m. temperature rose to 107.6 after a violent chill. Violent delirium and vomiting; icterus, coma. On next day spleen and liver were *greatly* enlarged; stools dark brown and blood-streaked; consciousness returned. Paroxysms continued two succeeding days, uninfluenced by quinine, which was stopped. Hemoglobinuria continues; urine: quantity 1100 c. c., specific gravity 1.013, bile coloring matter, no bile acids. Hemorrhagic foci in retina. Oligocythemia to 1,000,000 red cells, hypoleucocytosis to 2,800. Later, poikilocytes, microcytes, megalocytes, and the various nucleated forms. *No parasites at any time since patient is in Berlin.* Therapy: No more quinine; two-drop doses tincture of iodin for vomiting (effectual), enforced recumbency, valerian, ether, coffee, seltzer, wine.

A detailed examination of urine on the fifth day shows the following: Quantity, 2510 c.c.; specific gravity, 1012; slighly acid; hydrobilirubin abundant, very little albumin; no leucin, tyrosin or diacetic acid. After a week, and preceded by marked leucocytosis and great relative increase of eosinophile cells, there was a rapid increase of red-blood corpuscles.

There are deviations from this type, to which I shall return later, taking up now the question of plasmodia in hematuria.

I have found these in only three cases in which blood was obtainable. Some correspondents sent very good spreads, and I had the good fortune to obtain twenty spreads myself, making in all perhaps seventy. The three cases in which plasmodia were found all had quotidian paroxysms and a *very mild hematuria.* In not a single *fatal* case have I been enabled to find *any hematozoa.* I shall presently show slides of liver, kidney, and spleen of one fatal case in which you will not see any parasites, nor were there any in the fresh splenic, portal or renal blood obtained at the post-mortem, examined both fresh and stained. We know that plasmodia are, as a rule, absent from

ood in pernicious malaria, but observers are
the internal organs contain these organisms.
e, conclude that hematuria stands alone among
tions with reference to the entire absence of

of the blood is excellently given by Grawitz in
ast reviewed. In one fatal case at St. Joseph's
s rapid diminution of red discs to 1,125,000
ied, with hypoleucocytosis. The blood was
linen yellow, and contained 45 per cent. hemo-
e, there is no telling how much of this hemo-
y free in the plasma before dilution in the
intend in the future to estimate this in the
a quantity of blood to coagulate. Unfortun-
s distance on dried blood, these examinations
I have made tests in only a few cases, and in
ent, but in all of these the findings coincided
rant the conclusion that the reduction in red
ogressive, and ends with the cessation of the
arked in the onset. When red-cell necrosis
ll, the morphotic changes take place, and a
s results. The hypoleucocytosis with subse-
ucocytosis and presence of eosinophile cells
ed to be constant.

nsider the urine. I have had the opportunity
ematuric urine than anything else in this con-
ere upward of one hundred and fifty specimens;
ndents who did not even send histories would
vard urine. The rule is as follows: Bloody
mptom. There may be nothing else to attract
uantity at first is small, from 10 to 100 c.c. at
ith pain and vesical tenesmus. The specific
031), the acidity is diminished or absent, urea
eased. There is methemoglobin, hematin, and
onally there are phantom cells, and when pres-
e urine clears up. The amount of albumin is
l. There is nucleo-albumin, serum albumin,
epton. If much albumin, there are also casts;
ermination is usually fatal. There are neither

bile acids nor bile coloring matters. Uric acid is in marked excess, but from the diminished acidity it must be assumed that it is neutralized by the constituents of the transuded plasma. Later, the blood coloring matters, the solid constituents, and, consequently, the specific gravity, diminish. Bile coloring matter appears abundantly, and persists after the hemoglobin disappears. Bile acids are never found. Casts usually persist to the end, and such patients may die weeks after the urine has cleared.

The description of the visceral pathology is based upon one necropsy, from which I will show sections, and from the symptoms during life. In presenting these tissues, I would premise my remarks with the statement that I have been disappointed by the absence of any special pathology, and notably by the absence of the characteric lesions of pernicious malaria. We are taught malarial hematuria follows some form of malaria, most often the intermittent. In practice we find that it may develop suddenly without any apparent cause. As stated, I have learnt to distinguish two varieties: those with fever and plasmodia running a mild course; those without fever or fever of toxemia, uninfluenced by quinine, characterized by absence of plasmodia, and often ending fatally.

To save time, we will omit the gross pathology and the consideration of the organs not peculiarly affected.

In looking at these tissues, we find a cloudy swelling of the organs and a marked anemia of the liver and kidney, the spleen being hyperemic. The most notable changes are found in the liver. Here we see the capillaries filled with rod-shaped pigment masses enclosed in necrotic cells. There is very little pigmentation of the endothelia, and none of the hepatic cells, which are shrunken and are in a state of cloudy change. There is no fatty degeneration. This section is hardened in Flemming's acid mixture and stained with Flemming's sofranin. There is some peripheral round-cell infiltration in the hepatic lobules.

The kidney section, stained with hematoxylin and congo-red, shows charred ruffle, with cell proliferation in, and swelling of, the glomeruli. The tubular epithelia are in a state of cloudy swelling. The capillaries are empty and the epithelia are pigmented.

The only other hematuric kidney I ever saw I am able to

ı through the courtesy of Dr. J. L. Minor. In it we pathology of acute hemorrhagic nephritis. This differ- kidney pathology may explain why the urines of some devoid of disks or phantom cells, while in others these dant.

spleen is hemorrhagic. Some endothelia appear to be ing. There is round-cell infiltration (slight) around culse and apparent leucocytosis in some capillary spaces. ntation and no cell degeneration is seen.

me of these tissues is there any formation which the ve imagination could distort into a plasmodium.

ce of rib bone was also prepared, but, owing to age of no sections could be made.

oints for speculation are:

ıe peculiar onset;

ıe absence of plasmodia;

ıe cythemolysis;

ıe icterus;

ıe temperature when plasmodia are absent;

ıe shock, coma, delirium, and syncope;

ıe kidney pathology.

the first, the Italian writers believe there is a sudden ıature necrosis of the red cells. Against this may be at if premature the plasmodia would still be present. r, we have the evidence that cythmolysis is progressive, oglobin appears before icterus and bilirubinuria, and re the oligocythemia has reached its height. The best e can give is that we have a toxin set free either from uction of red cells or as the ultimate metabolic product asmodia. This view would also answer the second ques- partly the third.

nsidering the icterus, we must again remember that a begins first; icterus and bilirubinuria appear later and ously; bile acids are probably never present. This ıe jaundice to be hematogenous. It may be taken as ad that the liver takes up waste hemoglobin and pre- m it the biliary pigments. In lysemia there is a pre- moglobinemia, which results in hemoglobinuria when fails to use up the hemoglobin and returns it to the

blood through the hepatic vein to be eliminated by the kidneys, or else hemoglobin is carried simultaneously to the liver and the kidney. Since hemoglobin cannot produce jaundice *per se*, except in contusions, etc., it must be assumed that the excess of bile pigment is absorbed by the hepatic lymphatics and returned to the blood, producing jaundice and bilirubinuria, and the necessary quantity is carried off with the other constituents as bile through the natural channels. That bile *is* eliminated, even in excess, is shown by the tarry character of the stools (ignorantly ascribed to the action of calomel by the swamp doctor) and the bilious vomiting.

The temperature in non-plasmodic cases is most likely due, like most of the symptoms and pathology, to toxemia. The futility of quinine, the coma, the cerebral symptoms, the vomiting, the shock, the feeble pulse, the absence of plasmodia and of eosinophile cells at this time, the inconstancy and imperfect periodicity of the paroxysms—all point to intoxication.

This leaves now only the kidney pathology. When red cells are present, we have what we, under other conditions, consider the pathognomonic signs of choked kidney. But here we have usually a purpuric condition, hydremic blood, and damaged vessel walls. We have tumefaction of other organs, and the toxic condition of aggravated disease. We have a weakened heart, a possible splanchnic paralysis, and, when characteristic casts appear, organic kidney disease. I believe, in the absence of the latter, we may have no other than a secondary trouble due to the insult by the elimination of pathologic constituents. A kidney cannot for long excrete other than normal constituents without organic change. I believe the practice of securing elimination through the kidneys is wrong. The bowels, in the first order, and the skin next, should be the emunctories. Methylene blue, associated with nutmeg, seems to me to have the triple action of an antitoxic, antiperiodic, and local antiseptic of the urinary passages.

There are many intricate questions to be solved in the pathology of this peculiar disorder, and it is the province of the Mississippi Valley doctor to solve them.

Remarks of Dr. Goltman.

M. Goltman, M. D., Memphis. Mr. President: I am very sorry to take up the time of this audience at so critical a moment, but I am obliged to say that I am going to take the full limit. I have feelings in this matter, and I am going to express them here. Dr. Krauss was kind enough to allude to me as seconding his efforts in studying this disease. I am seconding those efforts, and I intend to continue to second them. It may be presumptuous on my part, having only been in this part of the country for fifteen or sixteen months and having seen only two cases of ordinary malaria in my life until I came to Memphis. At the last meeting of the Tri-State Medical Association the question of malarial hematuria was very broadly and variously discussed, and the discussion was simply disgusting, to tell the truth. There was no head or tail to it. One man got up and cried quinine, and the next man got up and cried no quinine; one man got up and cried calomel, and the next man got up and cried no calomel. To sum the whole thing up, nobody seemed to know anything about the disease. One man got up, a teacher in one of our schools, and said, "Why not tell those professors up North something about the disease, so that they may write books about it?" Well, I think if there are any books to be written on malarial hematuria, they can be written right here in the South. Furthermore, Dr. Osler, whom we all know, wrote down here when this investigation was taken up encouraging it in every way. He no doubt received one of the circulars sent throughout the delta by Dr. Krauss and myself, begging the physicians to give us the privilege, at our expense, to come any distance to study the disease. We have made four such journeys, and we have found out something. We have received specimens of the blood, urine and feces, and we have examined them closely. Dr. Osler, I understand, is himself going to send a man South to study the disease with a view to clearing up its pathology. The disease starts on with a chill, followed by fever. After that you have a large quantity of dark urine passed, and here is some of it. After this, however, suppression occurs, more or less complete. In some cases it is complete. This, with vomiting and jaundice, marks the disease. How does that compare with the pathology that we found? There is a cloudy swelling in the kidney, the capillaries of the kidney are choked, and the glomeruli are distended with blood. First, we find a hyperemia about the spleen and liver; later, anemia and a shrunken condition of the liver lobules. Then you find the symptoms of two classes, the mild symptoms and severe symptoms. You find the pathological changes mild and severe. You find cases that show the plasmodium, and you find cases that do not show it. As a rule, the cases that show the plasmodium recover, while the cases that do not show it usually die. In the cases that show the plasmodium, quinine is the thing; treat them with quinine and they will get well. In the cases that do not show the plasmodium, what would you give quinine for? In those cases quinine only aggravates the kidney. The question of elimination comes up. What will you do to eliminate the

toxins and the *debris* from the blood and tissues? We begin to give calomel, and we attribute the dark stools to the calomel. It is nothing of the kind. Those dark, tarry stools are just evidence of the over-activity of the liver, and not of calomel at all. Instead of lessening the labor of the liver, you are just giving the greatest stimulant in the world to make the shrunken lobules do work they cannot do. You want to get the bowel to acting, but do this without aggravating the liver. Get the skin to acting. In the cases we saw the skin was as dry as parchment and as yellow as saffron. This jaundice, however, is not hepatogenous, but hematogenous; and still you give large and increasing doses of mercury, often salivating your patient and aid in the disintegration of the blood, for you must know that calomel in large doses impoverishes the blood. Give saline cathartics; they are best and safest, and freely stimulate the skin. Tonics are necessary. In the cases that we saw you could scarcely feel the heart beat. Pumping a little nitroglycerin into the patient is not sufficient. In the case we saw at St. Joseph's Hospital we tried the injection of normal salt solution. I consider this rational therapy and a life-saving procedure. I recommended that this should be used directly into the veins from the start, as the vitality was so low that absorption could not be effected, but that was not done until later on. That case was studied. The patient died, and what of? A complication. The same condition that we found going on in the kidneys occurred at his weakest spot. He had had emphysema and throat trouble, and he died of edema of the glottis and lungs. We found numerous casts, blood-cells and renal epithelium. Whenever you see those casts and renal epithelium, the case is going to die. In conclusion, gentlemen, give less mercury and rely more on saline cathartics, for these not only eliminate waste products and toxins, but at the same time drain the kidneys vicariously, and give the organs a chance to recuperate and resume their functions. Stimulate the skin freely by frequent resort to hot wet pack. This will also lessen the liability to urinary suppression. Inject normal salt solution intra-venously or hypodermatically. This will prevent heart failure, act as an eliminating agent, wash out the kidneys, and materially aid in regenerating the blood. Make blood examinations, and when you find active plasmodia, give quinine, and when you do not find plasmodia, do not give it. Give your patient absolute rest, a bland nourishing diet, frequent heart stimulation, reconstructives and tonics.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Selections.

CANCER, A REBELLION OF CELLS.—Referring to the cancerous growths, Professor Roswell Park, of the University of Buffalo, says in the *Medical Record* that cancer is regarded as an abortive attempt of gland epithelium to reproduce itself, *i. e.*, a parody upon gland tissue. Its "sin," its essential pathologic character, lies in the fact that its cells breed with an utter disregard of the welfare of the body as a whole. Its danger obtains in that their offspring are so immature and degenerate as soon or later surely to break down, decay, and poison the lymph current. Sarcoma is a similar process on the part of some meso-blastic tissue cells. Supposing this statement of the nature of cancer growth accepted, can evolutionary pathology offer any explanation for the setting up of this process in any particular group of cells? The evolutionist believes that it can. The one factor which is universally admitted as predisposing to cancer is senility. It is emphatically a disease of middle or old age.

Just as soon as the food supply begins to be cut off from the peripheral organs and tissues, the liability to this process is immensely increased. The same thing will be found to be true of the organs most commonly attacked. In a large majority of cases these will be found to be either functionally senile or ancestrally either in a condition of progressive atrophy or of marked instability. As instances of the first class are the mammary glands and uterus, which after the failure or disappearance of their function become the site of nearly eighty per cent. of all cases of cancer in the female. As an instance in which both predisposing factors coëxist, we have the lips and tongue, in which both the atrophic changes consequent upon the loss of the teeth and the "border-line" character of the epithelium, poised between mucous and cutaneous possibilities, as it were, unite to render its cancer record next in darkness.

For ancestral instability few localities can compare with the pylorus, the old gizzard region, and here again we have a most frequent site of carcinoma. All of these facts seemed dependent upon one common biologic law, and that is that lowered nutrition, whether individual or ancestral, means increased liability to cancerous change; that just as soon as any organ or tissue finds itself being slowly cut off from its nutritive supplies, it is apt to begin breeding on its own account, like plants running to seed in poor soil, in a desperate endeavor to hold their own—in short, that cancer is literally "a rebellion of the cells," as Jonathan Hutchison has termed it, and, like many another rebellion, is chiefly provoked by starvation and want.—*Practical Druggist and Review of Reviews.*

ALCOHOL IN TYPHOID FEVER.—In a recent address on "Stimulants in Acute Disease" (*Amer. Practitioner and News*, May 1, 1897) Professor H. C. Wood said that in typhoid fever the general concensus of opinion was that alcohol was of great service, but there was still a question as to whether alcohol could be rightly regarded as a cardiac stimulant. The most that could be said was that it was a very mild stimulant to the heart. In this regard it could not be compared with cocaine, strychnia and other drugs. Notwithstanding this fact, however, it was undoubtedly a most useful remedy in typhoid. It was probable that it had the effect of increasing the resisting power of the tissues and also that it is to a considerable extent germicidal. There was another very curious thing about alcohol which set it apart from all other drrugs. Opium and other agents, when taken into the system, carried their message to the nerve centers and were then gradually eliminated; but alcohol, when once taken in, never came out. In health if we gave a man a wineglassful of whisky or brandy it could always be detected in the breath, but this was not the case in typhoid, if the alcohol was properly given. Here, then, was a useful point in the administration of alcoholic stimulants in this disease. If in any case the odor of alcohol could be detected in the breath, we could be sure we were overdoing the matter, and that the patient's system had not the ability to make use of all the stimulant given.

In typhoid, alcohol acted not only by furnishing resisting power, but also by repairing the tissues which were being burnt up by the force of the disease.—*Medical Sentinel.*

Coloring Matter of Bile in the Urine.—M. Rasmussen, in the *Hospitats-Tidende*, 1896, p. 1200, recommends a new method of demonstrating the presence of the coloring-matter of the bile in the urine. One cubic centimeter of urine is mixed with the same quantity of ether; to this is added six minims of tincture of iodine and the mixture is well shaken. Upon standing the liquid soon forms into two strata; above is the ether with the iodine; below is the urine which remains unchanged when no bile is present, but takes a brilliant green when biliverdin is present.—*E. in American Medico-Surgical Bulletin.*

Causes of Sudden Death.—Roughly speaking, about one-half of the total number of cases of sudden death from natural causes in adults is, mere or less, due to heart disease, which has existed for some time, and in which no further change is in progress at the time of death—such as valvular disease, angina, fatty heart, and sclerosis of the cardiac muscle from chronic myocarditis. In many cases concurrent lung or kidney disease complicates the statistics, such cases frequently being tabulated as deaths solely due to heart disease. Spontaneous rupture of the heart, mostly in men, may exceptionally occur; the left ventricle, often toward the front, is almost invariably the seat of the rupture. It is to be remembered that in traumatic rupture of the heart the right side, usually the auricle, suffers more frequently than the left in the proportion of about as 70 is to 54. Apoplexy and other cognate brain lesions rank second as natural causes of sudden death. It is to be noted that miliary aneurisms of the vessels of the brain, although most common in persons past middle life, occasionally occur in young people, even in children, and by bursting cause death from apoplexy. Chronic alcoholism, a potent factor among the causes of sudden death, is frequently associated with rapidly terminating heart and brain disease.

Asphyxia, a not unfrequent cause, may be due to œdema of the glottis, membranous deposit in the trachea, pressure of a neoplasm on the trachea, spasm of the vocal cords, pulmonary embolism, air embolism, rupture of a vessel or an aneurism into the air passages, asthma, whooping cough, pneumo- and hæmothorax, pleuritic effusion, and epilepsy. The rupture of a gastric or intestinal ulcer, of an aneurism, of a varicose vein, of the surroundings of an ectopic gestation, the formation of a peri-uterine hæmatocele, may severally prove quickly fatal. Nephritis (uræmia and apoplexy), diabetes, exophthalmic goitre, and Addison's disease may also terminate with unexpected rapidity. Hemorrhage into the pancreas occasionally causes death, apparently from the impression produced on the contiguous nerve centers. It is most common in males over forty years of age who may up to the occurrence of the hemorrhage to all appearances be in perfect health. Obesity, the habitual use of alcohol, and the presence of heart disease appear in many of the cases to be predisposing causes. Koetschau, however, observed hemorrhage into the pancreas in a woman—an alcoholic—in her twenty-fourth year. Occasionally it occurrs in spare people who are free from obvious disease and who are abstemious as regards alcohol. The sufferer may die within half an hour after the occurrence of the hemorrhage, or he may survive for twenty-four or even thirty-six hours. Draper records five cases between the ages of twenty-six and fifty-five years, of which three were men and two women. Fitz tabulated sixteen cases, of which eleven were males between thirty-one and seventy years of age, and five were females between twenty-six and forty-seven years.

Sudden death has in instances followed spontaneous rupture of an enlarged spleen, the result of tropical malarial influences, the individual immediately before rupture being to all intents and purposes quite well. Pellereaux gives the history of thirteen cases of rupture of the enlarged spleen; in five the rupture was spontaneous, and in the remainder it was due to apparently inadequate causes, such as a simple fall in the street. It is to be borne in mind that when the spleen is thus enlarged a mere pat with the palm of the hand may determine rupture and consequent speedy death, which, in the absence of a knowledge

erience of others, might readily be assumed to be
f criminal violence.

be remembered that some of the above-named dis-
exist without giving rise to any symptoms until the
nt arrives; this applies with special force to diseases
a prolonged course, during which, as a rule, symp-
tive of the disease declare themselves. Such a dis-
ric ulcer. I have seen more than one case in which,
tal rupture occurred, absolutely no symptoms were
l, not even such as might have been attributed to
epsia; in one such instance a second ulcer was pres-
walls of the stomach in addition to the one that rup-
caused death, and yet until perforation occurred the
ver felt any abnormal sensation whatever.—*J. D.*
D., in London Lancet.

E IN THE URINE OF PREGNANT PATIENTS AS AN INDI-
FŒTAL DEATH.—Knapp reports, from the German
clinic of Prague, ten cases of fœtal death at various
gestation in which, upon the day of labor, acetone
in the urine; this substance was also present during
days following labor. Some of these patients were
but the influence of syphilis upon the presence of
not determined. Half of the cases reported had suf-
syphilis, or were syphilitic at the time of pregnancy.
n the presence of acetone Jaksch's method was fol-
consists essentially in adding to the urine nitro-
f sodium, and then either caustic soda or potassa to
action. Acetic acid is then dropped into the fluid
haracteristic purple or violet color develops.—*Pacific*
urnal.

TLAXIS OF THE NIPPLE.—Of all the suffering to which
h is heir, none perhaps is more acutely painful and
than that caused by sore nipples in the act of nursing.
do we see the young mother writhing with pain and
rs streaming down her cheeks in her heroic attempts

to nourish her offspring—this crowning act of motherhood, this climax of maternal affection turned into tortures akin to those of the Inquisition. If we look for the cause we shall not have to search long. Improper habits of dress have cramped the glands and embedded the nipples within them, or if begun early enough have prevented the development of the nipple, so that if any have grown they are distorted and retracted out of all semblance to the proper shape and figure. This in turn has cramped and distorted the larger milk tubes leading to the nipple, until when lactation takes place it is nearly or quite impossible for the infant to get hold of it, and if it does the result is that the folds of inverted skin are drawn out, the accumulations of skin cells are easily displaced, leaving only the most delicate layer of true skin to withstand the irritation and violence of the nursing act. This it is wholly unable to do, and the result is that in the drawing out of the nipple the skin is fissured. The crack becomes deeper and deeper, nursing more and more painful, until the poor mother gives up in despair. By this time infection has taken place, or by reason of the distorted milk ducts the proper discharge of the lacteal fluid has been impossible, and mastitis and abscess with all their painful sequelæ supervene.

The remedy is just simple, plain common sense, but this must be applied before confinement; it is too late after lactation has actually begun. Let us see what we have two months before the end of gestation: a small, stunted, deformed, retracted, very tender nipple—exactly what we do not want in any particular. We want for baby's use a large, long—I never saw one too long—well formed, protruding, tough-skinned nipple. Can we make it? We can, by exactly the same process by which any part of the body may be developed and toughened, namely, by frequent regular exposure, use, and irritation. At the end of the seventh month the nipples should both be subjected to a systematic course of massage, pulling, rubbing, rolling and stripping, and especially the latter. This cannot be done too often or too thoroughly. The result will be most gratifying. The otherwise wholly useless and worse than useless organ will be prepared for its work; lactation will be free and painless. The glands will be well and easily emptied; the nightmare of fissures, mastitis, and abscess

will disappear never to return, and the young mother can hug her baby to her breast and say how sweet is maternity.

In my early years of practice I have experienced all the evils of neglect and mismanagement of the maternal font, until, driven to desperation almost by my repeated failures to relieve this most distressing condition, it occurred to me to put into practice this simple common-sense plan of preparation, and I have had the extreme gratification of seeing all my patients so treated go through lactation with only sensations of pleasure.—*F. W. Epley in Med. Record.*

THE DISUSE OF ERGOT IN PRESENT-DAY MIDWIFERY PRACTICE.—The abuse of ergot has led to so radical a change in the views of medical men as to the useful qualities of that drug in obstetric practice that the other extreme has been reached, and it is now scarcely ever used. The great majority of obstetricians nowadays seem to have arrived at the opinion that the use of ergot is not indicated in any stage of labor, but that after the uterus is completely emptied of its contents it may prove valuable in the prevention of post-partum hemorrhage. Dr. T. More Madden, of Dublin, joins issue with these conclusions, and holds to the view that under many conditions of labor the use of ergot is most beneficial. Dr. Madden's experience has been so extensive that his opinion must carry weight. He says that as regards the circumstances under which ergot may be employed in midwifery practice, "judging from the recent literature of this subject, it may not be superfluous to premise that to use ergot or any of its preparations safely and effectively during parturition the presentation should as a rule be cranial; that there should be no disproportion between the fetus and maternal parts, nor any obstacle to a deliverance in the genital tract; that the os uteri, if not previously fully dilated, should at least be sufficiently dilatable to allow speedy deliverance; and that a preparation of ergot should be selected and a dose given calculated to produce the required ecbolic effect. Under such conditions ergot may be given with utility when required either before, during, or after the second stage of labor, viz.: 1st. In some instances: (*a*) delay of from inertia of the uterus before full dilatation of the

dilatable os and in which there is an evident danger to either mother or child from protraction of labor. 2d. It may be administered during the second stage; (*b*) in nearly every case of long delay from inertia wherein the presentation is natural and the delivery not otherwise impeded, or in which (*c*) there is then reason to apprehend either the probability of subsequent hemorrhage or any such complication as may call for its use. 3d. During the last stage of labor this ecbolic may be employed [*d*) to hasten the expulsion of the placenta when delayed by inerta, or (*e*) for the arrest of hemorrhage. 4th. After labor ergot may be resorted to either immediately (*f*) to prevent or check flooding, or subsequently (*g*) to produce such tonic or permanent contraction as will effectually seal up the uterine vessels and so lessen the liability to subsequent septic invasion; or (*h*) to effect the expulsion of clots and so arrest afterpains. 5th and lastly, (*i*) to stimulate such contraction as may quicken or secure the process of involution after parturition." Dr. Madden believes in bold, full, and effective dosage of ergot, and uses the fresh liquid extract of the British Pharmacopœia. The dose he gives is two or three drachms by the mouth and a drachm by deep hypodermic injection in the gluteal region at the same time. The abstract of one hundred and fifty cases in which ergot was used in all stages of labor as well as after the birth of the child are given. In one hundred and forty-eight cases the result was favorable to the mother. The paper concludes with these words: "My experience on this subject points to the conclusion that the dangers which are now so commonly ascribed to the use of ergot in obstetrics are probably largely attributable to its misuse, or administration in unsuitable cases, or in insufficient doses, and therefore furnish no argument whatever against its judicious and proper employment."—*Med. Record.*

Extra-Uterine Pregnacy.—From a study on this subject by Dr. Chaput the following conclusions are announced: (1) the differential diagnosis between hematocele and pyosalpinx is usually difficult; (2) non-ruptured extra-uterine pregnancy before the fifth month can only be suspected; (3) in extra-uterine pregnancy complicated by non-encysted hemorrhage surgeons are

unanimous as to the proper treatment being immediate laparotomy; (4) in encysted hematocele or effusion the choice lies between (*a*) laparotomy and (*b*) vaginal incision. The latter is far from being free from danger, and the author always performed laparotomy if hematocele resisted ordinary medical treatment. Even if it is first discovered on making a vaginal hysterectomy or puncture he would perform laparotomy, which makes it possible to take away the ovum and placenta and stop bleeding. In discussing these propositions Dr. Bouilly thought that in any case of extra-uterine pregnacy one had to do with an abdominal tumor which indicated laparotomy. Lapartomy is also indicated when sudden alarming symptoms make one suspect rupture of extra-uterine pregnancy. The symptoms of hematocele from rupture of extra-uterine pregnancy usually makes the diagnosis easy; suppression of menses, suddenness of onset of symptoms, more or less peritonitis, and development of tumor in Douglas' pouch. Incision through the posterior cul-de-sac is the best treatment. Bouilly had operated in thirteen cases with the best results. Dr. Tuffier thought the diagnosis of rupture by no means easy. Out of four cases seen by him he mistook the first for acute peritonitis from perforation; in the second no diagnosis was made. He agreed with Bouilly that incision through the posterior cul-de-sac was the best treatment of simple or suppurating hematocele. Reynier and Terrier, however, would limit vaginal incision to septic cases, performing laparotomy in all recent ones, which allows the operator to see what he is doing, and to remove diseased appendages if necessary.—*La Semaine Medicale.*

THE REDUCTION OF HYPERPYREXIA, by the cold bath is, no doubt, very efficient, but only if it is carried out. But there's the difficulty. It is frequently not carried out when it should be, and we are, nevertheless, told that it has been done. Sponging the chest and abdomen with tepid water, or water and alcohol, is a simpler method of temperature reduction, and therefore more apt to accomplish results. If the desired evaporation is too slow, fanning may be added to hasten the process. I have known instances where physicians were so beset with the idea of reducing the temperature in typhoid fever cases by the cold bath, that

it was rigidly and pitilessly and foolishly adhered to despite the entreaties of the patient and the invariable subsequent serious nervous depression. This, too, despite the fact that tepid sponging rapidly brought down excessive temperature, was not only agreeable to the patient, but was actually looked forward to with pleasure. Such lack of common sense is actually shocking, and and surprising that many patients under such care convalesce slowly, or wearily join their ancestors. Whenever possible, therefore, we should at least avoid making an unpleasant impression, if we cannot actually give pleasure and comfort.—*Dr. A. H. P. Leuf, Med. Council.*

THE ARREST OF HEMORRHAGE IN HEMOPHILIA BY THE APPLICATION OF HEALTHY BLOOD.—Dr. Bienwald (*Semaine Medicale*, May 5, 1897; *Lancet*, July 10, 1897) has employed this very original method in the case of a child, aged 2 years, the subject of hemophilia. Having failed to arrest the hemorrhage from a small wound on the face by the application of perchloride of iron, he obtained some blood by aspiration from a healthy subject and deposited it on the wound. In a few minutes it coagulated, and the hemorrhage at once ceased. His explanation of the action of the remedy is that it supplies the ferment necessary for thrombosis in the small vessels. Whether this is correct or not is impossible to say in the absence of definite knowledge of the pathology of hemophilia. As affording his explanation some support, says the *Lancet*, we may mention the success obtained by Dr. A. Wright in his experiments with a solution of fibrin ferment and chloride of calcium as a stypic.

BLOOD STAINS.—The statement has been lately published that a warm solution of tartaric acid is most efficient in removing blood stains from towels, aprons, etc. Acetic acid has long been in use for this purpose, and either acid will probably answer equally well.—*Med. Record.*

THE USE OF SULPHATE OF SODIUM AS A HEMOSTATIC.—In the *Revue Medicale de la Suisse Romande* of January 20, 1897, Reverdin contributes an interesting article upon this subject,

and otherwise, and concludes that small doses of dium (two grains every hour) are of great value in of capillary hemorrhage for arresting the flow of s also found this method of treatment of value for graver hemorrhages. His experiments upon ani- how, however, that the remedy is only of value if tomach or injected into the veins. Under these it distinctly increases the coagulability of the e other hand, it is a noteworthy fact that its subcutaneously does not produce the same result. *Gazette.*

OF PREGNANCY WITH THE MICROSCOPE.—Dr. delphia, reports that pregnancy may be diagnosed enty days after its occurrence by a study of the tes in the urine. The feathery appearance disap- m the tips of the crystals sometimes from one first, followed by a like disappearance from the the fetus dies the normal appearance is renewed. , of course, affords the advantage that it can out suspicion on the part of the patient.—*Am. Jour.*

EATS.—Atropine is often objectionable on account ve dryness of the mouth and fauces it produces, though sometimes very effective, often fails use of camphoric acid has been strongly empha- he past few years. Hare found it controlled the of sweats in tuberculosis without any unpleasant About twenty grains given in whiskey an hour the expected attack will usually be sufficient to esired result. Small doses of the acid are of great pathic ptyalism or druling of children, as it con- tion without disabling digestion.—*Medical Times.*

TING OF PREGNANCY.—Dr. Weil states (*Prac-* 20 per cent solution of menthol in olive oil—dose, gar whenever nausea appears—will relieve every ing during gestation.

Editorial.

CENTENNIAL CALENDAR FOR SEPTEMBER.

As but two more months remain for the grandest and most magnificent as well as eminently satisfactory enterprise of the Volunteer State, its Centennial Exposition, it behooves our friends to make no mistake and let this important exhibition become a thing of the past before making a visit to our capital city and taking in its many attractions. With an attendance ranging from 50,000 to 75,000 per week during the month of August, notwithstanding many were deterred from coming by unnecessary expectations of excessive temperature, the two months to come, as a rule, contain many of the most enjoyable days of the year in this latitude. Sufficiently balmy to permit any extent of out-door exposure, and cool enough to encourage adequate exercise on the part of the most delicate as well as the sturdy and robust, to take in the many interesting features so admirably arranged in the spacious enclosure. The visitor from farthest north or most distant southland may confidently expect to be charmed, delighted and entranced.

September 4. Brandon Training School Day.
6. Labor Day.
7. Iowa Day.
7-8-9. United States Veterinary Medical Association; and State Veterinary Medical Association.
8-10. American Fruit Growers' Union.
9. American Fruit Growers' Day.
10. Fruit and Vegetable Growers' Day.
11. NASHVILLE DAY.
13-15. Southern Irrigation Congress.
14. Shelby County Day.
14. Cotton Day.
14. MEMPHIS DAY.
15-16-17. National Association of Colored Women.
15-17. Old-time Telegraphers.
15-18. National Road Parliament.
16. Free Home League of Oklahoma Day.
17. Physicians and Surgeons' Association Day.
18. Arkansas Day.
20. Young Men's Institute Day.
21. Irish-American Day.
21-23. National Association of Mexican War Veterans.
22. CHATTANOOGA and Hamilton County Day.
22. American Society of Railroad Superintendents.
22. Ancient Order United Workmen Day.
22. American Forestry Association.
23-26. National Spiritualists' Grand Mass Convention.
24. Massachusetts Day.

27. Journeymen Plumbers, Gas Fitters, Steam Fitters and Steam Fitters' Helpers of the United States and Canada.
29. Methodist Day.
29. Alabama Day.
30. Kate Kirkman Day.
30. Fire Underwriters' Day.

TWELFTH ANNUAL CONFERENCE OF STATE BOARDS OF HEALTH,

Held in Nashville, Tenn., August 18th and 19th, 1897.

The twelfth annual conference of State Boards of Health was called to order in the Senate Chamber of the State Capitol in this city at 10 A. M., Wednesday, August 11th, by J. A. Albright, M. D., President of the Tennessee State Board of Health. The exercises were opened with prayer by Rev. John B. Morris, Chancellor of St. Mary's Cathedral.

Maj. John J. McCann, representing Gov. Taylor (who was out of the city), and Dr. N. G. Tucker, in lieu of the Mayor, W. M. McCarthy, made appropriate welcoming addresses, the "Lame Miller" being especially witty and humorous.

Dr. C. A. Ruggles, of Stockton, Cal., President of the conference, was next introduced, and he responded eloquently to the warm words of welcome that had been spoken. His address was very short, but to the point, and in his own admirable way he praised the city, the reception committee, the addresses of welcome and the whole conference.

The roll-call showed the following in attendance. Several more arrived during the afternoon and the number was almost a complete representation from the States of the Union: W. H. Sanders, Ala.; C. A. Ruggles, Cal.; William H. Brewer and R. S. Goodwin, Conn.; G. T. Schwartz, R. I.; Benj. Lee, Penn.; R. D. Kahle and J. C. Crossley, O; J. H. Samuel Ky.; J. B. Lindsley and other members of the State Board of Health, Tenn.; Felix Formento and G. F. Patton, La.; James Evans, S. C.; R. H. Lewis, N. C.; T. A. Irving, Va.; Frank Wells and Henry B. Baker, Mich.; C. B. Johnson, Ill.; U. O. B. Wingate and Q. C. Sutherland, Wis.; H. M. Bracken, Minn.; E. A. Guilbert and J. C. Schrader, Iowa; R. M. Swearingen, Texas; James J. McShane and John S. Fulton, Md.; Elezear Pelletier, Province of Quebec; J. N. Hurty, Indiana.

Dr. Ruggles said he was sorry to announce that the Secretary, Dr. Probst, was absent, but he had appointed Dr. E. A. Guilbert, of Dubuque, Ia., as Secretary.

Maj. McCann said while the association was in session he could take charge of the ladies, and at 3:15 in the afternoon there would be street cars at the Maxwell House to take them and members of the association to the Centennial.

A subject for discussion was then announced by the Secretary, proposed by the State of South Carolina:

"Should the tuberculous insane be isolated from inmates in our asylums and accommodations provided for them in separate and detached buildings?"

The question was discussed by Dr. H. M. Bracken, Dr. Schwartz, Dr. Lee, Dr. Schrader, Dr. Formento, Dr. Ruggles, Dr. Evans and Dr. Sanders. The common opinion was that it was best to isolate such subjects.

The next paper, on "What Municipal Ordinances Shall Boards of Health Advise for Restriction of Tuberculosis?" was discussed by Dr. Evans, of South Carolina, Dr. Brewer, Dr. Johnson, Dr. Lewis and Dr. Lee.

Dr. Formento offered the following resolution: "That it is the sense of this conference that tuberculosis patients be isolated from other inmates in our hospitals, asylums, prisons and penitentiaries."

The next question proposed was that by the Province of Ontario on "What attitude are the State Boards of Health prepared to take regarding the new law for general inspection of dairy cattle, and what are the details of any practicable scheme for inspecting (*a*) herds supplying public milk; (*b*) dairy produce; (*c*) for dealing with animals which react to the tuberculosis test?"

The question was ably discussed by Dr. Benjamin Lee and Dr. F. C. Shrader, of Iowa City. The latter read a very complete paper on the subject, which was highly complimented. He treated the subject from the point of view of a health officer, first propounding two questions: "What attitude are State Boards prepared to take?" and "What is the best practical scheme for inspecting herds?" Then the question was thoroughly ventilated from a sanitary standpoint, calling attention to the danger of using diseased milk and its products, and the great commercial importance of the health officers taking the matter in hand. The paper was an admirable one and well received.

The question proposed by the State Board of Health of Wisconsin, "To what extent should State Boards of Health be expected to furnish a diagnosis of contagious or infectious diseases within their respective jurisdictions," came up for discussion next and was decidedly interesting.

Mr. Brewer, of Connecticut, opened the discussion and expressed the opinion that it was not the province of State Boards of Health to furnish diagnosis unless such was expressly stipulated by legislative enactment, as it interfered with the practice of regular physicians. Dr. Bracken took decided issue with him and declared that when State Boards had the power of quarantining, the people who were quarantined had a right to demand a positive diagnosis, and this could not be secured, in diphtheria, for instance, without a bacteriological examination. Dr. Schwartz agreed with Dr. Bracken, and the controversy extended until many of the physicians had spoken. With that discussion the programme for the day ended and adjournment was had until 9 o'clock next morning.

SECOND DAY'S SESSION—THURSDAY, AUGUST 19.

The conference was called to order promptly at 9 A. M., by the Presi-

nce being unusually large, quite a number of County the State being present. It is the universal opinion at there has never been a meeting which has been more e good effects of the deliberations of the body will be asting.

ır was that of Dr. Henry B. Baker, of Michigan, on the ar should mandatory measures go in dealing with (*a*) ping cough, (*c*) leprosy, (*d*) tuberculosis?" Dr. Baker ect in its various branches in a very instructive manner, able suggestions.

Philadelphia, was heartily in accord with the position er in his paper. He said his Board had published a sles calling attention to its serious character and the erefrom. He said the people needed to be educated on

Wingate, of Wisconsin, did not think there should be f measles and whooping cough, but he did think both e reported, and, in case of measles, should be pla- not believe in rigid quarantine in these cases, but ver should be classed with small-pox and rigidly quar-

warts, of Rhode Island, spoke instructively on this sub-

of Connecticut, said that twenty years ago he tried to rd of his city to exclude children with measles, but he tement that this was an infantile disease, and all had to oner the better, but now there was no trouble in getting o take all necessary measures to restrict this disease.

er was the most important of the morning session and bate. Dr. J. N. Hurty, as chairman of a committee ference of baggage agents, health officers and funeral Cleveland June 9, 1897, read the report prepared by commending changes and amendments in the present ming, disinfecting and transporting dead bodies, and cessary to be taken by the railroads and embalmers in Hurty said that the conference had consisted of able om each of the combinations interested, and that the mitted after much deliberation and discussion; that the ished gentlemen had been in attendance and were the lated the rules: Representing the Health Boards—Dr. igan; Dr. M. Meyerovitz, Illinois; Dr. J. N. Hurty, In- Ohio; Dr. Bryce, Ontario; Funeral Directors—J. H. . Miller, Ohio, and Mr. Hohenschuh, Iowa; General —Messrs. Quick, Toronto; Bryan, Boston; Sadd, Illi- ska; Quimmers, Pennsylvania, and Dearing, Chicago. ad represented a uniform form of transit, a combined roner's certificate, a health officer's permit for removal,

and, in fact, utmost precautions in the transportation of all dead bodies. The committee to which the formulation of the rules had been submitted consisted of Drs. Probst, Hurt, of Indiana, and Mr. Dearing, of Chicago, and they begged the attention of the National Conference to the questions involved.

Mr. Hohenschuh, Secretary of the Executive Committee of the National Funeral Directors' Association, was introduced and spoke on the subject of embalming diseased bodies and the rules now in existence concerning the process. He believed that the time had come when bodies could be embalmed so as not to endanger the people. He said that the funeral directors and the baggage agents had agreed to acquiesce in any action that might be taken by the conference. He said that the ideas of the world as yet were not as advanced as they should be and it was necessary not to be over-hasty in going beyond public opinion, but it was a fact that there were many necessary rules limiting baggage agents and funeral directors, and he hoped the conference would take action on such.

H. P. Dearing, General Passenger Agent of the Michigan Central, was present to state the view of the railroads. He said he agreed in the main with Mr. Hohenschuh.

Dr. Carl L. Barnes, of the Chicago Incorporated College of Embalmment, was asked to address the conference on such methods of precaution as are now taken by the embalming companies. Dr. Barnes said the principal feature in the science of embalming is education, and the most improved methods are being used by funeral directors all over the country. But he was in favor of being very stringent in requiring bodies to be suitably embalmed before shipment, and advised that the action taken by the conference be in accordance with this requirement. He described the process now used in embalming and the dangers from bodies even thus embalmed. He was not satisfied with mere cavity embalmment, as corpses reeking with bacteria could not be shipped across the continent without serious danger to those with whom they came in contact.

The three representatives of organizations interested having been heard, the main question was declared open for discussion; and the rules and regulations recommended by the committee were taken up. The following is a synopsis of these recommendations:

1. The transportation of bodies dead of small-pox, Asiatic cholera, yellow fever, typhoid fever or bubonic plague is absolutely prohibited.

2. The bodies of those who have died of diphtheria, scarlet fever, glanders, anthrax or leprosy, to be accepted for transportation only when prepared for shipment by being thoroughly disinfected by arterial and cavity injection, disinfecting and stopping of all orifices with absorbent cotton and washing the body with disinfectant.

3. Bodies of those dead of typhoid, puerperal fevers, erysipelas, syphilis or other dangerous, communicable diseases may be prepared for shipment by filling cavities with improved disinfectant, washing the exterior of the body and stopping all orifices with absorbent cotten. In cases of contagious, infectious or communicable diseases, the body must

not be accompanied by persons or articles which have been exposed to the infection.

Dr. Schwartz moved that the report of the committee just read be adopted as a whole, and the motion received a second and prevailed.

Dr. Schrader moved to take up the report seriatim, and the question was declared open for discussion.

Dr. Hurty was asked to read the report, and as each section was finished the discussion was opened to the conference. The debate and discussions on this report lasted nearly three hours, and, with a few unimportant amendments, the report was adopted.

The Secretary was instructed to send a report of the action taken by the conference to the executive officers of each State and Provincial Board of Health, with the request they take action as they see fit.

The Chair thanked the gentlemen who had addressed the conference in behalf of the associations of funeral directors, baggage agents and embalming companies, and said that the conference had been much benefited by the discussion brought forth.

The report of the Committee on Finance was called for, and Dr. Formento, Chairman of the committee, read his report, which was accepted.

Dr. R. M. Swearinger, of Texas, then read an elaborate and interesting paper on "The Relation of Federal to State Quarantine."

Dr. Swearingen said: "The quarantine act of February 15th, 1893, confers upon the Treasurer of the United States government the power to set aside, at his option, the health laws and health officers of any State, and authorizes the President of the United States to formulate rules and regulations in lieu of said laws, and to substitute Federal for State quarantine officers to enforce them; it further imposes upon the Treasurer of the United States the duty of making rules for the guidance of State health officers." Dr. Swearingen reviewed the provisions of the act referred to in the opening paragraph of his paper, and then said: "When this remarkable enactment is stripped of its technical verbiage, in plain English it means that sovereign States cannot be entrusted with the police regulations necessary to protect the public health, and that the Federal government, with vastly superior knowledge, must stretch forth its mighty arms for our defense. There is nothing in the law to test the merits of any controversy that might arise between State and Federal authority, nor of deciding questions of competency of any officer, nor for court-martial in cases of charges of incompetency or neglect of duty; no civil service examination; no tribunal before which shall be determined the grave question of setting aside the laws of a State. It depends solely upon the opinion of the chief, and his opinion upon the report of some inspector of the marine hospital service to the effect that the State rules are not satisfactory. What a parody on constitutional government! When one man, without even the form of trial, can set aside the laws of a State, it is despotism, subversive of every principle of freedom and unworthy of the American people." He said inspectors were sent along the lines of coast quarantine at stated intervals to see that State health officials are com-

plying with the rules and regulations. He said that such surveillance will necessarily lead to complications and embarrassment. He gave an instance when, on July 19th, he received a telegram from the Surgeon-General as follows: "Dr. R. M. Swearingen, State Health Officer, Austin, Tex.—Dr. Magruder, Inspector of Marine Hospital Service for Texas, reports location at Sabine Pass station dangerous in the extreme. Fifty men working on wharf thirty yards from station; vessels from infected parts of Vera Cruz, Mexico, arriving. Can you place inspectors lower down. Immediate action necessary." Dr. Swearinger explained that certain owners of land near this station were anxious to have the station moved and they appealed to the Marine Hospital Service, and hence the sudden dangerous condition of the station. It was because these property owners wanted it moved so they could lease wharf privileges at Sabine Pass. Dr. Swearingen discussed fully the sovereign rights of the States under the constitution. He said this paper was written to point out the defects of the law of 1893 and not as a criticizm on the marine service. At the conclusion of the reading and discussion of Dr. Swearingen's paper, the conference adjourned until 3 o'clock P. M.

AFTERNOON SESSION.

The afternoon session opened at 3 P. M. with a report of the committee on Vaccine Farms, by Dr. G. T. Schwartz, of Rhode Island.

The next question, proposed by the State Board of Health of South Carolina, that came up for discussion was: "Should the county jails and prisons of the different States be placed under the sanitary supervision of their respective State Boards of Health, which shall have them inspected at stated intervals by a health officer appointed by them or under their control?" The discussion was opened by Dr. W. J. McMurray. He was heartily in favor of placing the jails and prisons under the sanitary supervision of the State Boards of Health. He was in favor of having a man appointed under the authority of the State Legislature, who should be directly under the Board of Health, and whose duties it should be to inspect every jail and prison, and he further argued that before any prison was allowed to be erected it should be approved by the health authorities. He was followed by Mr. Brewer, who agreed with him in the main, but wanted to know if the Boards of Charities and Corrections should be set aside. To this Dr. McMurray replied that he was in favor of leaving the matter in the hands of the Boards of Health. After a few others had spoken the next question was taken up. This was:

"Should Boards of Health tolerate the feeding of hogs with offal from slaughter houses or meats from knackers' yards?" The discussion was opened by Dr. U. O. B. Wingate, of Wisconsin, who read several letters from various sources and declared that he saw no objection to the feeding of properly cooked meat to hogs. Mr. Brewer and Dr. Patton agreed with Dr. Wingate. Dr. Fulton, of Maryland, was opposed to feeding hogs offal on account of the danger of trichinosis, and as far as feeding them from the knackers' yards he considered it absolutely unpar-

donable. Dr. Lee, of Philadelphia, followed, and agreed with Dr. Fulton, although he thought properly cooked meat and offal might be fed with propriety.

The following amendment to the constitution was then passed: "The name of this association shall be 'The Conference of State and Provincial Boards of Health of North America.'"

The following amendment was indefinitely postponed: "The members of the conference shall be the executive officers and other delegated representatives of the National, State and Provincial Boards of Health, and the Quarantine Physicians, National, State and Municipal of the United States of America, the Dominion of Canada and the Republic of Mexico."

The election of officers for the ensuing year was then held, resulting as follows:

President—Dr. Benjamin Lee, of Pennsylvania;
Vice-President—Dr. Felix Formento, of Louisiana;
Secretary—Dr. J. N. Hurty, of Indiana;
Treasurer—Dr. E. Pelletier of Quebec.

Detroit, Mich., was selected as the next place of meeting.

Dr. C. A. Ruggles, the retiring President, then said that when he was elected President last year he was so surprised that he could not extend proper thanks, and he now resumed that thankful attitude and thanked the members of the conference for their kindness then and courtesy since. He then introduced Dr. Benjamin Lee, the new President.

On taking the chair President Lee made a peculiarly happy address, and was particularly felicitous in his reference to the pigeons that have made their home in the Senate Chamber, although the exigencies of the occasion demanded that he call them doves. He said in part:

"Gentlemen and Fellow Members: It goes without saying that my heart is very full of gratitude to you all, not only for the compliment you paid me personally, but for the compliment to my State as well. There is no body I feel more in touch with than this, and no body from which I go more inspired to greater effort; certainly there has been no meeting of this body from which I could go forth more inspired for earnest effort in behalf of humanity, for I consider it a particularly auspicious meeting. No body of men ever met more inspired with patriotic resolves to do their best for their cities and country than this. And it is a particularly grateful fact that in this city, that once resounded with the clang of of arms and with the roar of cannon, men from all quarters of the country have gathered and the omen is happy that the doves of peace flutter above our heads and the sound of debate is mingled with the cooing of the birds of love."

On motion of Mr. Brewer the thanks of the conference were extended to the local committee on arrangements, the authorities of the city and Exposition, and others who had welcomed and entertained them.

On motion of Vice-President Formento the thanks of the conference were extended to Dr. Ruggles, the retiring President, and Dr. Guilbert,

who had acted as Secretary of the meeting. The conference then adjourned to meet next year in Detroit.

THE TRI-STATE MEDICAL SOCIETY OF ALABAMA, GEORGIA AND TENNESSEE will hold its next session at Nashville, Tuesday, Wednesday and Thursday, October 12, 13 and 14, 1897. A special day has been set apart for its members at the Tennessee Centennial Exposition, and the meeting promises to be one of the most interesting and largely attended of any in its history. A number of important papers have already been announced, and some distinguished physicians and surgeons are expected from a distance, by special invitation. The officers are: Dr. W. F. Westmorland, of Atlanta, President; Dr. C. R. Atchison, of Nashville, Vice-President; Dr. Frank Trester Smith, of Chattanoooga, Secretary, Dr. W. D. Haggard, Jr., of Nashville, Chairman Committee of Arrangements.

GENITO-URINARY IRRITATION.—So many diseases require stimulation of the urinary secretions that a real good diuretic in eligible form should be hailed as a boon. We know Wayne's Elixir to be a diuretic that will not disappoint you. Dr. Charles K. Gardner, a distinguished physician and surgeon of Huntington, W. Va., writes that he obtains positive results from its administration as he obtains from opium for pain or from quinine for intermittents. It seems to more satisfactorily allay irritation of the genito-urinary organs than any remedy we have ever tried, and will prove to others, as it has to us, the most satisfactory preparation in all organic and functional diseases of the genito-urinary system.

SANMETTO IN DIABETES MELLITUS.—R. A. Miller, M.D., of Atchison, Kan., writing, says: "I used Sanmetto in a severe case of diabetes mellitus in a gentleman 54 years of age, in which there was an excessive flow of urine, patient having to arise some four or five times during the night, severe irritation of neck of bladder and enlargement of the prostate gland, dry, hot skin, with considerable emaciation. After using Sanmetto for three or four days the trouble was greatly improved, patient not having to arise more than once during the night, and has since, by the use of one more bottle of Sanmetto, almost recovered. I think Sanmetto a most excellent remedy.

WE CALL the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to indorse their preparations as being all they claim for them.

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DISEASES OF WOMEN: A Hand-Book for Students and Practitioners, by J. BLAND SUTTON, F. R. C. S., Eng.; Surgeon to the Chelsea Hospital for Women; Asst. Surgeon Middlesex Hospital, London; and Arthur E. Giles, M.D., B. Sc. Lond.. F. R. C. S., Edin.; Assistant Surgeon Chelsea Hospital for Women, London; 8 vo., cloth, pp. 436, with 115 Illustrations. Price $2.50. W. B. Saunders, 935 Walnut St., Philadelphia, Publisher, 1897.

While we do not, as a rule, approve of compends or condensed works for cramming purposes, this work, although allied to that class, is so excellent and thorough, as well as clear and practical, as to demand a most favorable opinion, and as a means of quick reference, as an aid to more comprehensive volumes, and as a means of study when time and opportunity is limited, it will certainly attain a reasonable degree of appreciation. It is a systematic and rational presentation of the practical principles of this specialty in a condensed yet instructive form from the standpoint of gentlemen who are well versed in all the details and thoroughly competent. The illustrations are very clear and well calculated to elucidate the subject matter, and the expert gynacologist, as well as the general practitioner will find valuable suggestions contained in it.

SURGICAL HINTS FOR THE SURGEON AND GENERAL PRACTITIONER, by HOWARD LILIENTHAL, M.D., Assistant Surgeon to Mt. Sinai Hospital, New York City, New York. International Journal of Surgery Company, 1897. Price 25 cents.

In writing this little book the author's aim has been to present a number of observations and suggestions whose value has been thoroughly tested at the bedside and in the operating room.

The material is well arranged, the typography excellent, and the little volume is of a convenient size to be carried in the pocket and perused at leisure moments.

THE EYE AS AN AID IN GENERAL DIAGNOSIS, a Hand-Book for the Use of Students and General Practitioners, by E. H. LINNELL, M.D., 8 vo., cloth, pp. 248. The Edwards & Dorken Co. Publishers, Philadelphia, 1897.

Examination of the eyes affords aid not only in the diagnosis of diseases of the central nervous system, but also of constitutional affections and diseases of other organs, and the indications furnished by the eye are too little understood and too often overlooked. Dr. Linnell has endeavored to greatly aid the practitioner in the important field of diagnosis, and a careful study of his excellent volume can and will greatly aid in forming a correct and definite opinion of the exact pathological conditions that may be in more or less obscurity. It is not a treatise on ophthalmology, but simply as its title states, a "Hand-Book" to aid in general diagnosis, and both students and practitioners will not waste time in a careful study of its pages.

TWENTIETH CENTURY PRACTICE, an International Encyclopædia of Modern Medical Science, by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, of New York City, in twenty volumes. Vol. XI, *Diseases of the Nervous System*, 8 vo. cloth, pp. 962, Wm. Wood & Co., Publishers, New York, N. Y., 1897.

Over half of this volume is occupied by a consideration of the Cerebro-spinal and Sympathetic Nerves, by James Hendric Lloyd, of Philadelphia, and comprises a most complete, thorough and comprehensive treatise on this important section in this subdivision of Modern Medical Science. Tropho-neuroses (excluding Seleroderma, Acromegally and Adiopsa Dolorosa), by Chas. K. Mills, of Philadelphia; Tropho-neuroses (limited to the above-mentioned conditions), by F. X. Dercum, also of Philadelphia; Diseases of the Spinal Cord, by L. Bruns, of Hanover, and F. Windscheid, of Leipsic; Tabes Dorsalis, by P. J. Mobius, of Leipsic; the Combined System Diseases of the Spinal Cord, by Adolp Strumpell, Erlangen; and Pain, by Lightner Witmer, of Philadelphia, complete the volume and justly make it one of the most valuable contributions to the medical literature of the day.

REFERENCE BOOK OF PRACTICAL THERAPEUTICS, by various authors, edited by FRANK P. FOSTER, M.D., Editor of the *New York Medical Journal*, and of *Foster's Encyclopædic Medical Dictionary*. In two volumes, Vol. II, 8 vo., cloth, pp. 618. D. APPLETON & Co., Publishers, New York, 1897.

We had occasion in the May number of this journal to express our gratification at the many excellencies of this magnificent work that will prove of so much practical service to members of the medical profession. This gratification is only increased by an examination of the second volume, just issued by the Appletons. The two volumes combine a most excellent compilation of the developments of Therapeutics accepted at this time.

A very complete index closes the second volume, so full that the physician can refer to any of the remedies he may desire with the least possible trouble. This, with the "Index of Diseases," and the alphabetical arrangement of the various subjects, leaves nothing to be desired.

We find all the latest suggestions in Therapeutics carefully considered, that Antitoxin in the first volume, then Nucleins in the second, and the twenty-four pages alone devoted to Serum Treatment, show that this is an up-to-date work; while the old standard and long known remedial agents have been given thorough consideration.

The list of contributors given in our notice of this work in May is alone quite sufficient guarantee of its reliable character, and the well-known ability of its erudite editor is only the more sustained by this valuable addition to our current medical literature.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

CLASSIFICATION AND SURGICAL TREATMENT OF ACUTE PERITONITIS.*

BY N. SENN, M.D., PH.D., LL.D., CHICAGO.

An intelligent and systematic discussion of the treatment of acute peritontis must necessarily be based on a rational classification. A great deal that has been said and written on this subject is worthless, owing to a lack of a proper classification. The classification should include the anatomy, pathology, and etiology of the disease. It is especially important in the discussion of the surgical treatment of peritonitis, before an audience composed of physicians and surgeons, to make a clear distinction between the different clinical forms with a view of pointing out the limitation of purely medical treatment and the legitimate

*Abstract of an address delivered before the Twelfth International Medical Congress, held in Moscow, August 19-26, 1897, reprint from *N. Y. Med. Record* of August 26, 1897.

scope of surgical intervention. The clinical classification which I here suggest appears to cover the ground fairly well, but would be incomplete without an exemplification from other standpoints, and for this reason I have prepared the following:

SYLLABUS OF CLASSIFICATION OF ACUTE PERITONITIS—*Anatomical.*—Ectoperitonitis, endoperitonitis, parietal peritonitis, and visceral peritonitis, viz., mesenteritis, epiploitis, perigastritis, peri-enteritis, peri-typhlitis, peri-appendicitis, pericolitis, perihepatitis, perisplenitis, pericystitis (urinary and gall bladder), perimetritis, perisalpingitis, peri-oöphoritis, pelvic peritonitis, diaphragmatic peritonitis.

Etiological.—Traumatic peritontis, idiopathic peritonitis, perforative peritonitis, metastatic peritonitis, puerperal peritonitis, peritonitis infantum, fœtal and intra-uterine peritonitis, peritonitis neonatorum.

Pathological.—Diffuse septic peritonitis, putrid, hemorrhagic, suppurative, serous, and fibrino-plastic peritonitis.

Bacteriological.—Streptococcus infection, staphylococcus, pneumococcus, bacillus coli commune, gonococcus, and tuberculous infection.

Clinical.—Ectoperitonitis, general septic peritonitis, perforative, circumscribed, hæmatogenous, visceral (see under anatomical), pelvic, puerperal, and subdiaphragmatic peritonitis.

1. ECTOPERITONITIS.—An inflammation of the attached side of the peritoneum is called ectoperitonitis. As compared with inflammation of the serous surface, this form is characterized clinically and pathologically by intrinsic tendencies to limitation of the inflammatory process. The mechanical and anatomical conditions for diffusion of the infection are less favorable than when the free surface of the membrane is affected. It may become quite diffuse, however, when the cavum Retzii or the retroperitoneal space on either side of the spinal column is the seat of a suppurative inflammation. In infected wounds of any part of the abdominal wall in which the peritoneum is exposed, but not perforated, the primary ectoperitonitis is occasionally followed by the extension of the infection to the serous surfaces through the lymphatics, or the direct extension of the infective process through the tissues until it reaches the endothelial lining. Peritonitis of visceral origin is always preceded by ectoperitonitis.

The surgical treatment of an ectoperitonitic suppurating focus is curative and prophylactic. The prophylaxis consists in the prevention of rupture of the contents of the abscess into the free peritoneal cavity, by means of an extraperitoneal incision and drainage.

Suppurative inflammation of the loose connective tissue in the cavum Retzii often leads to extensive ectoperitonitis, occasionally to perforation into the peritoneal cavity, septic peritonitis, and death. Leusser found that the loose connective tissue between the peritoneum and adominal muscles is divided into two layers by a plane of fascia which is inserted into the upper border of the symphysis. An abscess into this region may therefore be submuscular or prevesical; the former occupies the space between the fascia and the muscles, and assumes an ovate outline with the pointed extremity of the swelling directed downward; an abscess behind the fascia, a true prevesical abscess, resembles in outline the distended bladder. The indications for prompt surgical interference are particularly urgent when the abscess is subperitoneal, as it is in such cases that the peritoneum is extensively involved, and the danger is greatest of extensive burrowing of the pus and perforation into the peritoneal cavity most frequently takes place. The proper treatment of an abscess in the cavum Retzii is an early and free incision made in the same manner and with the same care as in operations for stone in the bladder by the suprapubic route.

2. General Septic Peritonitis.—I understand by a general septic peritonitis an inflammation of the entire peritoneal sac, the result of most virulent infection, the patients dying not so much from the effects of the inflammation as from the rapid introduction into the general circulation of septic material from the peritoneal cavity. In suppurative peritonitis the primary microbic cause is less in quantity or virulence, and a sufficient length of time intervenes between the beginning of the attack and the operation or death for the formation of pus and other inflammatory products. Every acute peritonitis is septic in so far that phlogistic substances reach the general circulation from the inflammatory lesion, but the term septic should be limited to those cases of diffuse septic peritonitis in which, as a rule, death occurs in a few days and before any gross pathological conditions

have had time to develop. It is a disease that is almost uniformly fatal with or without operation. The claim of operators to have cured such cases by laparotomy must be accepted with a good deal of allowance. Acute general septic peritonitis is essentially a streptococcus disease. The disease is observed most frequently after perforation into the free peritoneal cavity of an abscess containing septic pus, rupture or perforation of any of the abdominal or pelvic viscera containing septic material, gunshot or stab wounds of the abdomen with injury of the gastro-intestinal canal, and occasionally as the result of infection during laparotomy. The gravest form of puerperal sepsis is a diffuse septic peritonitis.

The subjects of this variety of peritonitis die so soon after the beginning of the disease that at the post-mortem or, if the abdomen is opened during life, at the operation no gross tissue changes are discovered. Besides a lightly increased vascularity, nothing is found to indicate the existence of peritonitis. The septic material formed in large quantities and of intense virulence is rapidly absorbed by the stomata of the under surface of the diaphragm, discovered and described by von Recklinghausen. In putrid peritonitis the streptococcus infection is complicated by the presence of putrescible substances which serve as a nutrient medium for saprophytic bacteria which modify the character of the inflammatory product. It occurs most frequently in connection with grave forms of puerperal metritis. Surgery has done much toward its prevention, but very little toward saving life after the disease is once fully developed. Careful analysis of the cases which yielded to laparotomy would undoubtedly disclose the fact that most of them were not genuine cases of general septic peritonitis, but cases of more or less localized inflammation of the peritoneum with or without suppuration.

I have opened, drained, and washed out the peritoneal cavity in many cases of diffuse septic peritonitis, and I am free to confess without a single successful result. All of my patients died in from a few hours to a day or two after the operation, of sepsis, in spite of heroic stimulation and in some cases of frequently repeated irrigation with sterilized water, decinormal salt solution, or mild antiseptic solutions. On the other hand, some surgeons report a fair percentage of recoveries after laparotomy for what

they call general septic peritonitis. Krecke has collected one hundred and nineteen cases of laparotomy in general peritonitis, in which there were fifty-one recoveries and sixty-eight deaths. A. J. McCosh operated between 1888 and 1895 inclusive in forty-three cases of general septic peritonitis. Of these thirty-six died and six recovered, a mortality of about 86 per cent. A free abdominal incision was made in all, and with few exceptions irrigation was employed.

It is not easy, or always possible, to ascertain the extent of inflammation *in vivo* by opening the peritoneal cavity, and a strong suspicion remains that at least in some of the cases which recovered the peritonitis was not general, or that the operation was performed before the entire serous surface was involved.

A general discussion of the *medical treatment* of peritonitis is out of place here, but a few words in reference to what the surgeon should do and what he should not do in the way of medical treatment when he assumes charge of a case of peritonitis are pertinent to my subject. Stomach treatment must be limited to the administration of liquid food and stimulants. If, as is so frequently the case, nausea and vomiting are prominent symptoms, rectal enemata are of the greatest value. The distressing thirst can often be effectually relieved by high rectal enemata of warm water, and if these are not tolerated, by hypodermic infusion. Some authorities favor cathartics, others condemn them and rely on opium. Mr. Tait taught us years ago the value of saline cathartics in the prevention of peritonitis and in its treatment during the incipient stage, and his treatment and practice are not only supported by clinical observation, but have been substantiated by experimental investigations. He has found the most efficient treatment for septic conditions following abdominal section to be thirty or forty grains of sulphate of magnesium, repeated every hour or every other hour until the bowels move freely. I have seen many cases of threatened peritonitis after abdominal section aborted by the timely administration of saline cathartics. If the stomach is intolerant, calomel in small doses, repeated hourly, and saline enemata are indicated. One of the great dangers in peritonitis is rapid distention and paresis of the intestines, conditions that are provoked by opium and which can be most effectually averted by early and free catharsis.

The use of cathartics is, of course, absolutely contra-indicated in all cases of peritonitis caused by perforation.

In such cases the use of opium is legitimate and useful, as it diminishes shock, and lessens the extravasation of septic material and its rapid diffusion over the peritoneal surface. Shock, general debility, and, as Fritsch has shown, a weak heart increase the danger from sepsis. Strychnine, camphor, and alcoholic stimulants should be employed early and at short intervals in all cases of grave peritonitis. The application of ice or the cold coil over the abdomen frequently succeeds in diminishing tympanites and should be employed to prevent overdistention and paresis of the intestines when this condition appears, and the state of the peripheral circulation is good. If the heart's action is weak and the capillary circulation sluggish, hot applications are more agreeable to the patient and a better stimulant for the feeble peripheral circulation.

There can be no difference of opinion in reference to the advisability of early *operative treatment* in the management of general diffuse septic peritonitis. Without operation death is certain. An early operation may succeed in arresting further extension of infection in cases in which the disease would become diffuse, and in diffuse cases may occasionally be the means of saving a life which, without it, would be surely lost. An early diagnosis and prompt operative interference are the conditions *sine qua non* of success. The patient should be properly prepared for the operation, and not only with a view of securing absolute asepsis for the field of operation and everything that is to be brought in contact with the wound, but the necessary precautions should be carried into effect to sustain the heart's action and stimulate the capillary circulation during and immediately after the operation. I am partial to the use of sulphuric ether as an anæsthetic in performing laparotomy for this indication, as it has a less injurious effect upon the already enfeebled circulation than chloroform. The body must be carefully protected against loss of heat, by warm flannel blankets and by bottles or rubber bags containing hot water. The solutions which are to be used for irrigation must be kept at a temperature of 110° to 120° F.

Laparotomy, as a therapeutic resource in the treatment of

peritonitis, is of recent date. J. Ewing Mears as early as 1875 operated by abdominal section in a case of circumscribed suppurative peritonitis following childbirth. He advocated at that time surgical intervention in all cases of suppurative peritonitis. Treves reported a case of acute peritonitis treated by abdominal section in 1885, which terminated in recovery, and he recommended the operation in similar cases. During the same year Pèan advocated in the treatment of septic peritonitis incision, toilette, and drainage of the abdominal cavity. About the same time Oberst urged energetic surgical treatment in cases of acute peritonitis. In 1886 Lawson Tait reported two cases of acute peritonitis treated by abdominal section, of which one recovered. He advised laparotomy in all cases of peritonitis if an effusion can be demonstrated and the existence of fever indicates the pyogenic nature of the inflammatory product. In 1889 successful laparotomies for septic peritonitis were reported by Demons, Bouilly, Dernuce, Brun, Labbe, and Routier. It is evident that in most of these cases the operation was performed for circumscribed suppurative, and not for diffuse septic peritonitis.

The treatment of peritonitis by laparotomy received a new impulse when about nine years ago it was found that the disease is so often produced by primary suppurative and perforative lesions of the appendix vermiformis.

Incision.—Authorities are as yet not agreed as to the size, location, and number of incisions. In circumscribed peritonitis the rule is usually followed to open and drain by the shortest and most direct route. In perforation of any organ other than the appendix vermiformis, resulting in diffuse peritonitis, the first incision should always be made at or near the median line. The incision is made above the umbilicus if the gall bladder, stomach, or duodenum is the seat of perforation, below the umbilicus in perforation of any other portion of the small intestines.

Mikulicz makes a sharp distinction in the treatment of diffuse septic and progressive fibro-purulent peritonitis. In the former the abdominal incision should be large, the perforation closed, and the abdominal cavity disinfected and drained. In the latter the adhesions should be carefully preserved and the different pus accumulations opened and evacuated separately. Some surgeons prefer to open the abdomen some distance from the linea alba.

Ramsay gives cogent reasons why the incision should be made through the centre of either the rectus muscle, where the abdominal wall is thickest and strongest and where the different layers can be sutured separately with the greatest ease, and where for these reasons ventral hernia is least likely to follow. Prolonged drainage is always an important etiological element in the occurrence of post-operative ventral hernia, and this complication is certainly less likely to follow if the incision is made through the muscular portion of the abdominal wall than through the thin fibrous linea alba.

In the treatment of diffuse septic peritonitis the incision should be at least large enough to insert the hand for the purpose of making a careful intra-abdominal exploration. Mr. Bowlby is of the belief that an incision below the umbilicus does not necessarily empty the peritoneal cavity. In cases of peritonitis resulting from perforation of a gastric or duodenal ulcer he advises two incisions (one above and one below the umbilicus) to insure complete flushing. In diffuse peritonitis incisions should be made at a number of points with a view to facilitate irrigation and insure free drainage. The best points will be above the pubes, above the umbilicus, and posteriorly through the lumbar region on each side. In woman free drainage into the vagina by incising Douglas' cul-de-sac will answer an excellent purpose.

McBurney has devised an incision for operations upon the appendix that reduces to a minimum the risks of a subsequent formation of a ventral hernia. "The skin incision is obliqne, about four inches in length, crossing at a right angle a line drawn from the spine of the ilium to the umbilicus and about an inch from the spine. This incision is a little to the outer side of the normal situation of the appendix. The fibres of the external oblique and its aponeurosis are not cut, but separated with great care in the direction in which they run. When the edges of the wound of the external oblique are separated with retractors, a considerable expanse of internal oblique muscle is seen, the fibres of which cross somewhat obliquely the opening formed by the retractors. With a blunt instrument the fibres of the internal oblique and transversalis muscle can be separated, without cutting more than an occasional fibre, in a line parallel with their course,

arly at right angles to the incision in the external
s. Blunt extractors are now introduced, and these
transversalis fascia, which is then divided in the same
f all the peritoneum is divided." This incision is an
or the removal of a diseased appendix not complicated
ative peri-appendicitis. In the latter event the incis-
e large enough to enable the surgeon to see what he
order to avoid injuring important neighboring organs.
tion.—A number of surgeons favor eventration, after
e peritoneal cavity freely, in order to obtain more thor-
fection. In septic peritonitis the serous coat of the
e always damaged, and frequently the muscular coat
These conditions render them liable to be injured
uptured when extensive eventration is made, to say
the shock which always attends such a procedure.
seen the dangers of extensive eventration many a time
ative treatment of intestinal obstruction, and wherever
am only too anxious to reach without it the object for
operation is performed.

on.—Some surgeons invariably irrigate; others be-
irrigation does more harm than good and are con-
ove the inflammatory products by means of sponges.
lly conceded that in diffuse peritonitis it is impossible,
wn methods of irrigation, to remove all of the infec-
ial from the peritoneal cavity, yet the surgeon resorts
n almost instinctively to diminish the danger from
. The use of strong antiseptic solutions has been
, and sterilized water, decinormal salt solution, soln-
ric acid or acetate of aluminium, and Thiersch's solu-
w most frequently used. Whatever solution is em-
hould be used at a temperature of 110° to 115° F.,
eam should be sufficiently large and strong to wash
st remote corners of the peritoneal cavity in the direc-
drainage opening or openings.

's attempts to treat septic peritonitis, artificially pro-
nimals, were almost entirely a failure. Irrigation of
eal cavity with sublimate, chloroborate of sodium,
id, etc., were useless; the animals quickly perished.
better results were obtained by sponging gently the

peritoneal surfaces with gauze sponges and employing the Mikulicz gauze drain. In nine experimental cases in dogs, two recoveries were obtained by this method. Reichel believes successful operative treatment is applicable only in cases of circumscribed empyema-like pus accumulations. Delvet speaks more favorably of the results of irrigation of the peritoneal cavity. He advocates the use of salt solution in operations upon the abdominal cavity, when contamination takes place during the operation, and in the operative treatment of septic peritonitis. Barker has found by experience that a very convenient method of flushing the abdominal cavity is to use a can with three taps to which tubes of large calibre are attached, and thus the peritoneal cavity can be flushed from several points at once, the fluid flowing out through the original incisions. Wiggin believes that the use of peroxide of hydrogen, followed by plenty of decinormal salt solution, is most beneficial in disinfecting the peritoneal cavity and in preventing adhesions.

Coutinuous irrigation, which is useful in the treatment of septic wounds in other localities, has been suggested in the treatment of general peritonitis.

The propriety of tearing up adhesions for the purpose of making the irrigation more thorough is very questionable and as a rule should be avoided. The so-called toilette by using sponges must be done with the utmost gentleness, if resorted to at all, as all mechanical insults inflicted upon the endothelial surfaces are sure to aggravate the existing conditions. If it is intended to remove the fluid from the peritoneal cavity, it is better to do so by placing the patient on the side so as to pour it out instead of removing it by mopping.

Incision of Overdistended Intestine.—One of the most unfavorable conditions in peritonitis is overdistention of the intestines with gas and septic fluid material. A paretic inflamed intestine is permeable to pathogenic microbes, thus adding another fruitful source of infection to the existing septic inflammation. It is natural that surgeons should have made attempts to relieve the distention and unload the intestines of septic material by tapping or by making one or more incisions. Mixter recommends incision of the coils of the paretic intestines at as many points as may be necessary to evacuate them. The intestines should

be drawn out of the wound, held over a basin, incised fr
to four places, and thoroughly emptied, after which th
should be quickly washed off with a hot saline solution, t
ceral wounds sutured, the intestine returned, and the abd
incision closed. I have made visceral incisions in a num
cases in which the intestine had become paretic, and, al
but one of the patients recovered, I am thoroughly con
that it is almost essential to success in such desperate cas
place the patient on the side, bring the most distended p
the intestine well forward into the wound, and make a tra
incision about an inch in length opposite the mesenteric
ment. As the intestinal wall does not contract, evac
should be secured by pouring out the contents from abo
below the incision by grasping the intestine at some d
away and bringing it above the level of the incision. I
method several feet of intestine can be evacuated throu
incision. After thorough cleansing of the exposed int
surface with warm salt solution the wound is sutured
usual manner and the intestine is returned.

Drainage.—Drainage of the abdominal cavity after
tions for peritonitis is an admission of the present imperfe
of surgery; it is an acknowledgement on the part of t
geon that he has only in part fulfilled the indications for
the operation was performed; it is a confession that he w
able to accomplish what was so much needed and wha
earnestly desired—complete asepsis of the entire per
cavity.

In 1870, during the Franco-Prussian war, Marion Sim
a special study of the cause of death in cases of gunshot
of the abdomen. He found that with few exceptions,
bullet entered above the pelvis the case proved fatal, whi
ilar wounds of the pelvic portion of the abdominal cavity
in recovery. He ascribes this difference in the mortality
circumstance that high wounds resulted in extravasation
intestinal contents which accumulated in the pelvic cavity
in pelvic wounds the track made by the bullet served as a
age canal. In 1872 he recommended that in all pene
wounds of the abdomen and in operations on any of its c
drainage should be established. Very few surgeons of th

ent day would feel justified in opening the abdominal cavity for peritonitis and dispensing with drainage. Voices have, however, been raised against too frequent resort to drainage, among them Olshausen, who says: "Drainage of the peritoneal cavity is an illusion. Drainage to be of service must be limited to the evacuation of preformed pathological spaces." In perforating wounds he recommends a careful cleansing and complete hæmostasis, avoiding drainage in all recent cases.

Barker relies mainly on thorough flushing and sutures the abdominal incision. He resorts to drainage only in the treatment of putrid abscesses caused by appendicitis. If a drain is used in exceptional cases of peritonitis he advises its removal at the expiration of twenty-four hours.

At present there are three methods of drainage in general use: 1. Tubular drainage; 2. Capillary drainage; 3. A combination of tubular and capillary drainage.

Tubular drainage is especially indicated in cases in which the abdominal cavity contains pus. The tubes employed are made of either glass or soft rubber. Keith's glass drains answer an excellent purpose in draining the lowest portion of the abdominal cavity. They should be slightly curved at the abdominal end so as to reach the floor of the pelvic cavity without making harmful pressure against the bladder. Frequent aspiration of the contents of the drain is necessary for the purpose of removing the fluid inflammatory product as soon as it is formed. The rubber drain answers the same purpose, but is justly accused of causing more mechanical irritation than the smooth glass tube. Prolonged tubular drainage has not infrequently caused intestinal fistula by pressure. It is for this reason that I now almost invariably surround the rubber or glass tube with a few layers of iodoform gauze securely fastened to the tube. In draining the pelvic portion of the abdominal cavity I frequently use two drains of the size of a little finger, one on each side, brought out through the same opening in the lower angle of the wound. In draining in the lumbar regions and through the vagina rubber drains should be employed.

Capillary drains are frequently employed as substitutes for the tubular drain and in addition must often be relied upon as an important hæmostatic resource in arresting parenchymatous

e name of Mikulicz is connected with a special auze drainage of his own device, which has proved lue in the surgical treatment of peritonitis. The ulicz tampon is made by taking a piece of iodoform e of a large handkerchief, to the centre of which a of aseptic silk thread is stitched. When used it is a pouch and is carried by means of curved forceps n of the pelvis and is filled with strips of iodoform ree end of the silk thread issuing from the mouth of When it is desired to remove the drain the gauze awn out and the pouch is removed by making traction ring. In dealing with large cavities requiring an nount of gauze I have learned to fear iodoform gauze, cases are by no means isolated in which a drain comively of iodoform gauze became the immediate cause m iodoform intoxication. This is particularly liable ases in which the patient's kidneys are not functionly. I should, therefore, limit the iodoform gauze to er or two and pack the pouch with ordinary sterilised

e by sterilized wicking has been popular in Germany r of years, and in many cases has answered an excel-. It has never found its way to any extent into ere gauze is employed in preference, R. T. Morris wicks, which he employs in a peculiar way. The k consists of a little roll of bichloride gauze, around pped a couple of thicknesses of Lister's protective auze protrudes a little from each end of the cylinder, nall fenestræ in the protective silk allow the serum gauze elsewhere. When a large gauze packing for r abdomen is needed, an apron of the silk can exhe gauze and protect against intestinal adhesions. ____ _____ possesses great advantages over ordinary tubular and capillary drainage, and recommends itself more especially in the surgical treatment of diffuse septic peritonitis. The prolonged contact of gauze with a serous surface is very prone to give rise to permanent adhesions, as every clinician knows. In employing gauze in draining the peritoneal cavity, it is necessary to use long stripe, which should be inserted in different directions and

brought out at the same place and fastened together with a safety pin. Van Hook has shown that the gauze drains more freely if the external ends are left long and placed on the side of the pelvis below the level of the wound. Drainage must be dispensed with as soon as possible, in order to prevent adhesions and to enable the surgeon to close the incision by secondary suturing, an important precaution against the formation of a ventral hernia. The strips should be shortened, and one after the other removed as the indications for drainage disappear.

The simultaneous use of tubular and capillary drainage is an excellent method. It is effected by packing loosely a glass drain of proper length and size with strips of gauze or aseptic wicking. This is especially useful when the inflammatory product is serum instead of pus.

Intra-Intestinal Saline Injections.—The value of saline cathartics in the treatment of incipient peritonitis not caused by perforation is now generally recognized. One of the difficulties encountered in the treatment of such cases is the intolerance of the stomach to food and medicines. A. J. McCosh has succeeded in securing free catharsis and in overcoming the intestinal paresis after operations for peritonitis by injecting into the small intestine, at a point in the jejunum or in the ileum, as high up as possible, a saturated solution containing between one and two ounces of sulphate of magnesium.

After-Treatment.—In all cases the most attentive and careful after-treatment is essential to success. The patients are prostrated by the disease and operation, and require a stimulating treatment. External dry heat is an important element in counteracting the shock and in restoring the peripheral circulation. The thirst is quenched most effectually by subcutaneous infusion or rectal enemata of water. Strychnine and alcoholic stimulants are best calculated to increase the force of the heart's action and tone of the arterial circulation. Partial inversion of the body by raising the foot of the bed and also autotransfusion are potent means of inducing cardiac stimulation. A well-fitting abdominal bandage applied firmly exerts a favorable influence in preventing and diminishing abdominal distention. Saline cathartics should be administered as soon as the stomach is in a condition to absorb them. Meteorism can often be relieved by high turpentine enemata and the use of the elastic rectal tube,

As no operation ever secures completely aseptic conditions of the peritoneal cavity in cases of general peritonitis, Marmorek's streptorococcus antitoxin may prove a useful adjunct to the after-treatment. A number of cases have recently been reported in which the serum appears to have been of great value in the treatment of septic conditions in the peritoneal cavity and elsewhere. It is not probable that it will ever displace the knife in the treatment of diffuse general septic peritonitis, but it is more than probable that it will prove to be an important therapeutic agent in the treatment of peritonitis before and after operation. Opium should be used with great caution. The external dressing should be changed as soon as it becomes saturated. If continuous irrigation is decided upon a decinormal salt solution, at a temperature of 105° F., is the one usually employed. The current should be small and without much force. The outflow from the peritoneal cavity should be received upon a rubber blanket and conducted into a receptacle near the bed. This method of irrigation recommends itself particularly in cases of diffuse septic peritonitis. In suppurative diffuse peritonitis periodical flushings, at intervals of two or three hours, will prove of value in removing from the peritoneal cavity the fluid products of the inflammatory process. The solutions best adapted for this purpose are a saturated solution of the acetate of aluminium, a 3 to 5 per cent. solution of boric acid, or Thiersch's solution. Drainage when once established should be suspended gradually, and not suddenly. As soon as the peritoneal cavity and the drain canals are aseptic the external wound should be sutured, to prevent as far as possible the subsequent formation of a ventral hernia.

3. Perforative Peritonitis.—Perforative peritonitis invariably occurs as a secondary affection, usually in connection with an ulcerative or gangrenous lesion of some part of the gastro-intestinal canal. Penetrating wounds of the abdomen with injury of the gastro-intestinal canal must be regarded in the same light as perforative lesions of the abdominal organs in the causation of peritonitis. Perforative peritonitis is manifested by the sudden onset of diffuse pain and tenderness, rigid abdominal walls, fever, vomiting, and the presence of gas in the free peritoneal cavity. According to my observation, peritoneal meteor-

ism in perforative peritonitis caused by appendicitis is rare, while I have seldom found it absent after perforation of any other portion of the gastro-intestinal canal. According to the number and virulence of the microbes which find their way into the peritoneal cavity with the extravasation, the resulting peritonitis is either diffuse or more or less circumscribed. The colon bacillus is invariably present in the inflammatory product, but others, according to the nature of the primary affection, may also be found. Perforative peritonitis must be treated as a strictly surgical disease. The perforation should be found and properly treated before a general septic peritonitis has had time to develop. There are exceptions to this rule in cases in which the perforation is small and the extravasation has produced a limited peritonitis in a locality where it is safe to wait for abscess formation, as is often the case in the region of the gall bladder and appendix vermiformis. Penetrating wounds of the abdomen with visceral lesions of sufficient extent to give rise to extravasation, call for immediate laparotomy.

Perforating Gastric Ulcer.—Perforating ulcer of the stomach is found most frequently on the anterior wall near the small curvature. Perforation in this locality is followed more constantly by diffuse peritonitis than is that through the posterior wall. The onset of the disease is always sudden, no matter what the antecedent symptoms may have been. Shock is present in greater or less degree. Vomiting, though frequent, is not constant. Abdominal pain and tenderness, increased by pressure, are nearly always present; abdominal rigidity in the early stage, and distention later on, are frequently noted. The duration of the case varies from a few hours to five days, most of them terminating in death in less than twenty-four hours.

Mikulicz performed the first operation for this condition in 1883. The first successful case was reported by Kriege, of Berlin. The incision should be made in the median line from the ensiform cartilage to the umbilicus, and enlarged if necessary. If the posterior wall is perforated, and the perforation cannot be reached in the usual manner, the anterior wall is incised and the perforation closed through this incision. Before the perforation is sutured the stomach should be emptied through a stomach tube, or through the opening. It is not necessary to excise the

margins of the ulcer, as these can be inverted in tying the Lembert sutures. Should the wall of the stomach in the immediate vicinity present an unfavorable condition for successful suturing, an omental flap or graft of requisite size should be sewed with catgut over the line of suture.

Perforating Ulcer of the Duodenum.—This occurs suddenly and frequently without any marked premonitory symptoms indicative of the existence of the primary disease. It is only recently that peritonitis resulting from this cause has been subjected to operative treatment. The ulcer is usually in the first part, but may be in either of the other two portions. The ulcer is simply inverted, excision being unnecessary. Drainage must also be provided for.

Perforating Typhoid Ulcer.—Perforation of a typhoid ulcer, large enough for extravasation to take place into the free peritoneal cavity, is a fatal accident, death ensuing in the course of a day or two. Perforation, however, does not always terminate in that way. Extravasation is often prevented by the affected part of the intestinal wall becoming attached to an adjacent serous surface, thus protecting the peritoneal cavity against infection. I have seen several cases of typhoid fever in which, about the time that perforation is most likely to occur, circumscribed peritonitis set in which could have been caused only by a perforating ulcer under such favorable conditions, and from which the patient recovered without operative intervention.

Kussmaul, in October, 1885. was the first to excise and suture a perforating ulcer. Lueck performed laparotomy for the same indication on October 22, 1885.

Wiggin collected twenty-four cases of perforating typhoid ulcer subjectcd to laparotomy, with six recoveries. If those cases are rejected in which the diagnosis is somewhat doubtful, there are seventeen patients with three recoveries. The first successful result was obtained by Van Hook, the second by Netschajans, the third by Abbe. J. Price has recently reported three consecutive operations with as many recoveries, a surgical feat which it will be difficult to duplicate. The writer has performed the operation three times with one recovery. The feasibility and justifiability of abdominal section for perforating typhoid ulcer have been established in view of the fact that all of

the patients who have been operated upon would have died without the operation. The operation should be performed as soon as possible after the accident has occurred. The mortality will always remain great, owing to the debilitated condition of the patients and the existence of multiple ulcers.

4. CIRCUMSCRIBED PERITONITIS.—This is an inflammation of the peritoneum, during which a greater or lesser part of the peritoneal cavity becomes excluded from the original source of infection by the formation of plastic visceral, parietal, or visceral and parietal adhesions. The symptoms appear suddenly, or are preceded by those incident to the primary disease. The intensity of the general symptoms is determined more by the nature and virulence of the microbic cause than the area of the peritoneal surface involved. The clinical course and termination are determined largely by the nature of the bacterial cause, the abdominal location of the primary starting-point and nature of the environment. Localized peritonitis is most likely to occur outside of the limits of the small-intestine area. It may be confined to the lesser omental cavity, particularly in cases of perforating ulcers of the stomach and duodenum. More frequently it is caused by appendicitis and cæcitis. A very frequent cause of circumscribed peritonitis is inflammation about the gall bladder, uterus, Fallopian tubes, or ovaries. Localized peritonitis can be detected only if a demonstrable swelling forms at the seat of inflammation. The mildest form of infection gives rise to fibrino-plastic peritonitis, which leaves temporary or permanent adhesions, but terminates without suppuration. Circumscribed suppurative inflammation is always attended by fibrino-plastic peritonitis, the products of which and the viscera which it involves form the abscess wall. In fibrino-plastic peritonitis surgical interference becomes necessary only when intestinal obstruction is caused by adhesions. In circumscribed suppurative peritonitis the pus should be evacuated as soon as the disease is recognized, and, if possible, by an extraperitoneal route.

Acute Tuberculous Peritonitis.—Tuberculous peritonitis, usually circumscribed, occasionally presents itself as a widely diffused acute affection. According to the intensity of the infection or the degree of susceptibility of the patient to the action of the

tubercle bacillus, the disease assumes one of the following forms: (1) Tuberculous ascites; (2) fibrino-plastic peritonitis; (3) adhesive peritonitis. Suppuration takes place only when the tuberculous product becomes the seat of a secondary mixed infection with pus microbes. Laparotomy is now a well-established operation in tuberculous peritonitis, but the exact manner in which the operation exerts its therapeutic influence is not well understood. I have obtained very satisfactory results in cases which resisted laparotomy and drainage by repeated tappings and injections of two to four drachms of a 10 per cent. iodoform-glycerin emulsion.

Suppurative Peritonitis.—Suppurative peritonitis is always more or less circumscribed. It is generally associated with fibrino-plastic exudation. The accumulation of pus may be so large that upon opening the abdomen it may appear as though the entire peritoneal cavity and all of the organs contained within were implicated, but a careful examination will almost always reveal the fact that a large part of the peritoneal cavity and many of the organs are shut out from the inflammatory process by plastic adhesions. The appearance and character of the pus are often greatly modified by the admixture of an extravasated material. If the pus is thin and serous, we speak of a sero-purulent peritonitis. It is a serous peritonitis with the forma- of pus in sufficient quantity to render the serum more or less turbid. This sub-variety of suppurative peritonitis is without exception accompanied by fibrinous exudations, which tend to limit the extension of the infective process. Sedimentation of the solid constituents takes place, so that the fluid contains more of the solid matter in the most dependent portion of the affected district.

Fibrino-Plastic Peritonitis.—This is a very frequent form of circumscribed peritonitis. It is usually secondary to an affection of one of the abdominal or pelvic organs. The exudation is often so copious that it has been mistaken for malignant disease. The exudation in the course of time contracts and results in strong bands of adhesion which frequently flex and distort the the organs to which they are attached; this has given rise to the term, *peritonitis deformans.*

The surgical treatment of circumscribed peritonitis by ab-

dominal section has yielded very encouraging results. The extra-peritoneal route is the one of choice in all cases in which the abscess cavity can be safely reached and efficiently drained. In circumscribed accumulations of pus in the peritoneal cavity in which the seat of the disease must be reached through the free abdominal cavity, the safest course to pursue is to perform the operation in two stages. The first operation then consists in suturing the parietal peritoneum to the wall of the abscess cavity, suturing the abdominal incision, with the exception of a space large enough to incise and drain the abscess cavity later. This space is packed with iodoform gauze and two or three days later the abscess is incised and drained. If the symptoms are urgent and the operation must be completed, the contents of the abscess cavity should first be removed by aspiration. In fibrinoplastic peritonitis without suppuration no attempt should be made to tear the adhesions unless they have caused intestinal obstruction. Some surgeons, however, aim to remove the fibrinous exudate with the pus. Demona had under his care a woman suffering from suppurative peritonitis following suppuration of an ovarian cyst. Her condition at the time of operation was critical. He opened the abdomen, evacuated the pus, removed the cyst, and, with a rough sponge and blade of a knife, scraped the entire surface of the intestine; a most satisfactory recovery followed. There are few surgeons who would follow his example to-day, Adhesions tend to limit the infective process and should be interfered with as little as possible.

5. Hæmatogenous Peritonitis.—Idiopathic peritonitis, so-called, or hæmatogenous peritonitis, may occur, but is much more rare than a similar affection of the pleura and pericardium. As peritonitis is always caused by bacteria of some kind, a peritonitis that develops independently of a local cause is the result of an infection through the blood and should be called hæmatogenous or metastatic peritonitis. It has been observed in connection with nephritis, pyæmia, rheumatic arthritis, and acute exanthematous diseases. In the absence of even a distant focus of infection it is plausible to assume that peritonitis in very rare cases is caused by the localization of pus microbes from the blood in some part of the peritoneum prepared for their reception and growth by some antecedent injury or disease.

The surgical treatment must be guided by the location and the extent of the disease, the existence or absence of complications, and the pathological type the disease presents at the time of operation.

6. VISCERAL PERITONITIS.—The inflammatory process is seldom limited to a single organ, as during the course of the disease adjacent organs or the parietal peritoneum will surely become involved. In inflammatory and rheumatic affections of the abdominal walls and the abdominal and pelvic viscera, plastic inflammation of the omentum frequently constitutes the safeguard against infection of the general peritoneal cavity by the omentum becoming firmly attached over a threatened perforation or visceral or parietal wound. The surgeon often imitates nature's process and makes use of the omentum in covering denuded surfaces or those where perforation threatens. The surgical treatment of appendicitis and its various complications is not well settled at the present time. Some surgeons advise operation in all cases in which a diagnosis of appendicitis can be made, regardless of the nature of the disease and the character of its complications. The more conservative element of the profession limits the use of the knife to cases in which there are positive indications for surgical interference. For my own part I resort to operation in all cases during a first attack, when the symptoms point to perforation or gangrene of the appendix. The sooner the operation is undertaken under such circumstances the better the results. The appendix should be sought for and removed only if pus is found in the iliac fossa, and when it can be done without a material increase in the immediate risks of the operation; otherwise the treatment by incision and drainage will yield the best results. In mild cases of appendicitis from 80 to 90 per cent. recover under appropriate medical treatment, and in a fair percentage of cases the disease does not return. The gravest cases are those in which the affection of the appendix is followed by diffuse peritonitis. In the treatment of this class of cases nearly all surgeons are fully in accord with the rules laid down by McBurney in an article in the *Medical Record*, March 30, 1895. In relapsing appendicitis an operation is indicated, particularly in cases in which the attacks set in at short intervals and with gradually increasing intensity. In peritonitis

resulting from infective lesions of the uterus, ovaries, or Fallopian tubes, the organ primarily affected and resulting intraperitoneal abscess can often be reached more safely by a vaginal than by an abdominal operation. Occasionally the combined operation will be better.

7. PELVIC PERITONITIS.—Pelvic peritonitis is seldom met with in the male. It is a form of peritonitis in which the female pelvic organs are the primary starting-point of infection with extension to the peritoneum, through either the Fallopian tubes or the lymphatics of the uterus or of its adnexa. It is caused most frequently by gonorrhœal or puerperal infection, or develops after instrumental examination of the interior of the uterus or operation upon that organ. In pyogenic infection the inflammation may become diffuse, and if circumscribed, usually lead to the formation of parametritic or intraperitoneal abscesses, or pus formation takes place in both of these localities. In the peritoneal cavity the gonococcus produces a plastic peritonitis, and sometimes localized suppuration. Salpingo-peritonitis and more diffuse pelvic peritonitis are more frequently caused by gonococcus infection. Abdominal section is seldom performed for gonorrhœal peritonitis during the acute stage. An early incision through the vaginal roof into the cul-de-sac of Douglas, so strongly urged by Henrotin, is a rational procedure and frequently succeeds in preventing the extension of the infection and the occurrence of serious remote complications. I have in several instances incised and drained the Fallopian tube through such an incision, and in this way prevented further leakage from the tube into the peritoneal cavity, and thus directly cut off additional supply of infectious material. The treatment of large parametritic abscesses by an extraperitoneal incision is preferable to a transperitoneal operation in all cases in which the abscess can be reached by this ronte.

We shall hear less of intestinal, vesical, and rectal fistula as the remote result of pelvic peritonitis or parametritic abscesses as soon as the profession recognizes fully the necessity of timely operative interference.

8. PUERPERAL PERITONITIS.—By this term is understood a progressive inflammation of the peritoneum, occurring in consequence of an extension of an infection from any part of the

genital tract in puerperal women after delivery or abortion. The infection usually takes place through the lymphatics, and in the majority of cases terminates in difiuse septic peritonitis. In some instances the disease remains limited to the pelvic organs and their serous investment, then abscess formation, intra and extraperitoneal, is very likely to occur.

The treatment of the localized form of puerperal peritonitis is the same as that advised in circumscribed peritonitis resulting from other causes. The foudroyant form of puerperal sepsis proves fatal in spite of the most energetic medical and surgical treatment. The use of the streptococcus antitoxin may prove of great value and should receive an early and fair trial. It has been suggested that early removal of the infected uterus would prevent the extension of the disease to the peritoneum and death from sepsis, but the results have not been encouraging. It is exceedingly difficult, and in many cases absolutely impossible, to make a sufficiently early and positive diagnosis to warrant such a grave and mutilating operation as a timely and life-saving measure. If the uterus is removed after general septic peritonitis has developed, the operation is performed too late, and death from shock and sepsis is the rule.

9. Subdiaphragmatic Peritonitis.—This is a peritonitis limited to the under surface of the diaphragm and adjacent surfaces of the abdominal organs. If the inflammation remains limited and life is sufficiently prolonged, it usually terminates in the formation of a subdiaphragmatic or subphrenic abscess. Perforating ulcer of the stomach and duodenum, abscess of the spleen and liver are the most frequent affections which precede subdiaphragmatic peritonitis. Subphrenic abscess often ruptures into the pleural cavity, and in cases of empyema the possible existence of a subphrenic abscess must be kept in mind.

Accurate location of the abscess and the positive diagnosis are made by exploratory puncture. As perforating ulcer of the stomach is the most frequent cause, subphrenic abscesses are more frequently located on the left than on the right side. Occasionally a spontaneous cure occurs by perforation of the abscess into a hollow adjacent organ. The satisfactory results of operation in these cases furnish the most conclusive proof regarding its necessity and life-saving value.

Selections.

TREATMENT OF GALL-STONES.—Brockbank, in his recent work "On Gall-Stones," gives the following advice as to treatment: Warm water in large quantity certainly relieves the pain of biliary colic and the effect is increased by the addition of a little bicarbonate of sodium. It acts as a warm fomentation applied internally to the liver. Any good that alkalies may do is due partly to the quantity of bile excreted being increased by the quantity of fluid in the water drunk. A course of Calsbad often does great good. Much good is often done by the administration of olive oil. The unpleasant taste may be covered by the addition of a few grains of menthol and a tablespoonful of brandy to about six ounces of oil. The dose varies from two or three to twenty ounces a day, according to the amount the patient can stand. If they cannot take it by the mouth, ten ounces by the rectum will often do as well. Its beneficial action is partly due to its stimulating peristalsis, but chiefly to the fact that it is excreted in the bile. Oil, fatty acids, and sodium or potassium soaps are all good solvents of cholesterin, which is the chief ingredient of gall-stones.—*Univ. Med. Mag.*

THE TREATMENT OF CUTANEOUS CANCER.—Dr. A. R. Robinson, the well known authority, has a paper upon this subject in the New York *Polyclinic Journal* for July 15, 1897. His views remain the same as those which he has expressed in previous papers. He rightly condemns all mild methods of treatment, as they but stimulate the disease to greater activity. He also rightly considers electricity effective only in cases where it is used as a caustic. Erysipelas toxins are valueless. The knife is recommended only where much tissue can be removed. Caustic potash, and arsenious acid, in the form of Marsden's paste, are his chief reliance.

He expects these agents to destroy all of the visible disease, then next to it a number of cells which lie still further away by the inflammatory action of the caustic. He claims for caustics a greater destruction of disease and less deformity than possible with the knife. (Certain regions can best be treated with caustic applications, and they have a wide utility, but they may fail, even when used properly, as Robinson insists they must be, and the question comes down to the axiom "get all of the disease." One must do this no matter what is used, and results alone can show, when two or three years old, that one method must supersede all others.)—*Atlanta Med. and Surg. Jour.*

NEVUS OF THE FACE.—Dr. Abbe (*Med. News*) says that the best treatment consists in the use of an ordinary large cambric needle or a hat-pin, heated to a red heat, and then plunged into the tissues of the nevus *at a black heat.* The insertion of the neeble at a black heat has much to do with securing a good result. Punctures should be made in this way all over the tumor. There is no bleeding whatever, and the case is usually cured in three or four operations.

INTERFERENCE IN CASES OF SHOCK.—The question of shock is one that should attract a great deal of attention. Much nicety of judgment is required to determine just when to interfere and when to wait. I have had a good deal of experience with shock, although I do not do general surgery.

I remember an obstetric case or two that seemed to be moribund from post-partum hemorrhage. We turned out the clots and it would fill up again. There was uterine inertia, the pulse failing at the wrist, the patient looking as if she were dead.

In such a case, if you fill a douche bag with water, attach an aspirator needle on the end of the syringe, introduce into the skin of the flank and introduce from a pint to a quart of water on each side, and use ether instead of chloroform, the patient will often go through the operation all right. The water is not absorbed so readily from the rectum. It is true the intravenous injection would be better if you were fully prepared for it, in that it would act quicker.

One day I received a dispatch to go to Natchez. When I arrived, the next morning, I found the paticnt had a little respite from the hemorrhage. I stuck a needle in the side, as I have described. Then I opened the abdomen and turned out the fœtus, and by the time we were through the operation we had a quart of water being absorbed from the side, and although the pulse was 150, she got along all right.

This thing of shock is a difference between the sympathetic and vaso-motor systems. In shock the patient is bled, whether the shock be from malaria, a sick stomach or a loss of blood poured out on the ground, or into those vessels in the abdomen, and the symptoms are much alike.

Recently I got a message to go to Hot Springs prepared to operate. When I arrived I found a stout woman, with a pulse of 150 or 160, vomiting. She had retained nothing for a week or two, and she was in a dying condition. It did not look as if she could live until morning. We operated next morning under much better conditions.—*T. J. Crofford, of Memphis, Tenn., in Med. and Surg. Reporter.*

WYETH, in the *Polyclinic*, gives these directions to find the gonococcus: Place a small drop of the discharge upon a cover-glass and smear by rubbing two cover-glasses together; dry it by passing one of the cover-glasses with pus side upward through a spirit-flame two or three times; immerse this at once in a solution of methyl-blue; wash off the excess of coloring matter by holding it under clear running water, or by dipping the glass several times into clear water; dry the stained pus well by pressing with blotting paper; then cover it with a small drop of cedar oil; put on a thin cover-glass and examine with a lens magnifying from 700 to 1,000 diameters. The peculiar double-bean-shaped arrangement of the diplococci will be seen within the protoplasm of the pus corpuscle and epithelium.—*Med. and Surg. Reporter.*

A VERY frequent cause of disease in women is constipation. It is remarkable how careless many women are in this respect. It devolves upon the mother to educate the daughter that it is necessary to health that the bowels should move once in twenty-

four hours. Not only do they have from constipation a poisoning of the system from absorption of the liquid and gaseous contents of the bowels, the ptomains or poisons developed in them from fermentation producing depressing effects on the nervous system, with derangement of the stomach and assimilative organs, as shown in pale faces, debility, neuralgia, headache, etc.; but we get, in addition, from impaction of the feces in the rectum, uterine displacement, with its consequent disturbances in the pelvic circulation and with its general reflex neuroses. Gynecologists know well that the left ovary is more often diseased than the right one. The left ovary vein has no valve, and a slight pressure upon it prevents its emptying. Doubtless the pressure of a loaded rectum in this event is a proflific cause of ovarian disease, especially on the left side.—*Southern Med. Jour.*

Editorial.

YELLOW FEVER.

Since the issue of our last number quite a degree of sensation has occurred by reason of the development of this exotic visitor along the Gulf Coast border of our country. The outbreak first made itself known at Ocean Springs, Miss.; a small town on the L. N. and G. S. Railroad, a little nearer Mobile than New Orleans, and which has a variable population, greatly increased during the summer months by reason of its being a summer resort for many of the residents especially of the Crescent City. In all probability it first occurred here in the latter part of August, yet malarial fever and dengue being quite prevalent here at this time, and the mildness of the first cases of yellow fever occasioned quite a delay in its being fully recognized, so that it was not until the early days of September that so formidable a visitor was acknowledged to have reached our shores. Subsequently, cases occurring at Biloxi, New Orleans, Edwards and Mobile, caused no little consternation, and from day to day the secular press of the Southern States especially have had more or less sensational and startling headlines and reports in regard thereto.

So far, the disease has been characterized by an unusual degree of mildness, its quondam feature of heavy mortality being absent; and while quite a number of cases have occurred at the above-mentioned localities and some few other isolated cases, the sum total of deaths at this time will range somewhere between fifty and one hundred only. This in itself

is a feature to divest the present visitation to a great extent from the usual alarm, dread and consternation.

Active measures have been taken by local, State and National health officials to prevent any great degree of extension of infection, if its immediate arrest should prove ineffectual. Therefore, while the restrictions placed upon trade and travel may prove of some degree of detriment, loss and inconvenience in some localities, anything like a widespread, destructive or disastrous epidemic is hardly among the very slightest possibilities. The lateness of the season at which the outbreak occurred, its limitation so far to but few localities, the incoming of cold weather, which has already reached and has proven effective in many localities invaded in preceding epidemics, give great and satisfactory cause for gratification and a firm and rational confidence that the epidemic will hardly prove deserving the name as such.

PERITONITIS.

Having given a large amount of space in this number usually devoted to "*Original Communications*" to a reprint from the *N. Y. Medical Record* of an abstract of Prof. N. Senn's classic paper on Peritonitis, its Classification and Surgical Treatment, which appeared in the *Journal of the American Medical Association* in full, September 4th, we hope that those of our readers who are so fortunate as to be regular readers of these great weekly exponents of American medicine will bear with us, in behalf of the large number of our readers who are not so well supplied. In no one pathological condition, and none more important, has there been such a recasting of the lines of progress—so much so, that the text-books and standard works of reference of but one or two decades ago are absolutely obsolete regarding this only too frequent pathological element with which we have to contend. Prof. Senn, who is one of the most progressive, earnest and indefatigable workers of the day, deserves great credit for this masterly and up-to-date presentation of this subject to The International Medical Congress at Moscow, from which he will not only derive honor himself, but will reflect additional renown on American Medicine and Surgery with which he has so satisfactorily identified himself during his busy life. This excellent abstract will not only bear close and careful reading, but preservation for future reference and study.

TRI-STATE MEDICAL SOCIETY OF ALABAMA, GEORGIA, AND TENNESSEE.

The ninth annual meeting will be held in the Assembly Room of the Tulane Hotel in Nashville, October 12th, 13th, and 14th.

The following list of papers has been furnished by the Secretary, Dr. F. Trester Smith.

President's Address, "Carcinoma of the Breast." W. F. Westmoreland, Atlanta, Ga.

"Psychology," J. B. Cowan, Tullahoma, Tenn.

"The True Physician—His Responsibilities—His Duty to His Profession, and the People." John C. LeGrand, Anniston, Ala.

"A Pessimistic and an Optimistic View of Medicine." Y. L. Abernathy, Hill City, Tenn.

"A Boquet of Remedial Agencies." John P. Stewart, Attala, Ala.

"Treatment of Typhoid Fever." Jno. A. Larrabee, Louisville, Ky.

"Abortive Treatment of LaGrippe." E. H. Richardson, Atlanta, Georgia.

"Electro-Therapy in Medicines." Louise Eleanor Smith, Chattanooga, Tenn.

"Common Sore Throat." James H. Atlee, Chattanooga, Tenn.

"Vaccination." Seale Harris, Union Springs, Ala.

"The Pathology and Diagnosis of Early Phthisis." Llewellyn P. Barbour, Tullahoma, Tenn.

"Sero-Therapy in Tuberculosis." Paul Paquin, St. Louis, Mo.

"Importance of Early Recognition of Pleural Effusions, Due to Causes other than those located in the Pleuræ." Louis H. Jones, Atlanta, Ga.

"Abnormal Metabolism." G. W. Drake, Chattanooga, Tenn.

"The Subject of Hæmatology." E. C. Anderson, Chattanooga, Tenn.

"Inhibition, Physiological and Pathological." J. F. Peavy, Atmore, Ala.

"The Rational Treatment of Cancer of the Uterus." Geo. Wiley Broome, St. Louis, Mo.

"A Case of Fracture of the Skull, Followed by Basilar Hemorrhage; Trephining; Recovery." Curran Pope, Louisville, Ky.

"The Relation of the Cause to the Immediate and Remote Results of Fracture." R. M. Cunningham, Birmingham, Ala.

"Is Cancer Contagious?" E. Mather, Patterson, N. J.

"Stimulants and Narcotics in Obstetrics and Gynecology." R. R. Kime, Atlanta, Ga.

"Surgical Shock." Gilbert I. Cullen, Cincinnati, O.

"Cystitis; Its Course and Treatment." W. L. Nolen, Chattanooga, Tenn.

"Stricture of the Urethra and Its Treatment." Wm. R. Blue, Louisville, Ky.

"Operative Treatment in Enlarged Prostate." H. H. Grant, Louisville, Ky.

"Treatment of Chancroidal Ulcers." A. R. Danforth, Atlanta, Ga.

"Ablation of the Scrotum for Conditions Other than Varicocele." W. T. Goldsmith, Atlanta, Ga.

"The Treatment of Cancer of the Rectum." J. M. Matthews, Louisville, Ky.

"Burns and Scalds." G. A. Baxter, Chattanooga, Tenn.

"Metarsalgia, or Morton's Painful Toe." Geo. S. Brown, Birmingham, Ala.

"The Application of Plaster Jacket and Dressings." F. B. Sloan, Cowan, Tenn.

"Surgery of the Stomach." H. Berlin, Chattanooga, Tenn.

"Report of Operative Cases (Brain.) S. G. Courtney Pinckney, Atlanta, Ga.

"Fracture of the Elbow." B. G. Copeland, Birmingham, Ala.

"Treatment of Fractured Maxilla." D. S. Arnold, Atlanta, Ga.

"The After Treatment of Abdominal Operations." Valentine Taliaferro, Atlanta, Ga.

"Epiplocele, Report of a Case." J. W. Griggs, West Point, Ga.

"Appendicitis." G. Manning Ellis, Chattanooga, Tenn.

"The Evolution of the Treatment of the Stump, in Operations for Appendicitis." W. D. Haggard, Jr., Nashville, Tenn.

"Obstetrics." W. G. Bogart, Chattanooga, Tenn.

"Some of the Mammoth Ovarian Tumors of Surgical History." A. M. Cartledge, Louisville, Ky.

"Cases of Ectopic Gestation, Operated on by the Vaginal Route." W. E. B. Davis, Birmingham, Ala.

"The Technique in Hysterectomy for Uterine Myomata." W. H. Wathen, Louisville, Ky.

"Hysterectomy." Louis Frank, Louisville, Ky.

"Hysterectomy in the Treatment of Pelvic Diseases." Geo. R. West, Chattanooga, Tenn.

"Flap Operation for Atresia Vaginæ." Geo. H. Noble, Atlanta, Ga.

"Meningitis in Children." J. W. Russey, Chattanooga, Tenn.

"Mouth Breathing in Children and Its Dangers." Wm. Cheatham, Louisville, Ky.

"Injurious Results of Incompetent Refraction Work." Frank Sims, Atlanta, Ga.

"The Causes, Diagnosis, and Prognosis, of Valvular Diseases." Hazle Padgett, Columbia, Tenn.

"Rheumatism as an Etiological Factor in Cardiac Diseases." S. W. Fain, Chattanooga, Tenn.

Papers are also promised by Drs. Hunter McGuire, Richmond, Va.; J. R. Wells, Stone Mountain, Ga.; Louis McMurtry, Louisville, Ky., C. A. L. Reed, Cincinnati, O.; Wm. Warren Potter, Buffalo, N. Y.; Geo. Ben Johnson, Richmond, Va.; Joseph Price, Philadelphia, Pa.; Joseph A. White, Richmond, Va.

DOCTOR: Your library is not complete without the *Hypnotic Magazine*. Cost of this handsome monthly, including premium book on Suggestive Therapeutics, is only one dollar a year. Send for sample copy. Address The Psychic Publishing Company, 56 Fifth Avenue, Chicago.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Arrangements are now about completed for the meeting of the Asso-ion at Louisville on October 5-6-7-8, 1897. The different passenger ociations have granted a round-trip rate of one and one-third fare on certificate plan. The sessions will be held at the Liederkranz Hall, the headquarters will be at the Louisville Hotel. The following are ng those whose papers have been accepted:

"J. B. Murphy, Chicago: "Address on Surgery."

J. V. Shoemaker, Philadelphia: "Address on Medicine."

I. A. Abt, Chicago: "The Nature of Croup Following Measles."

J. C. Ayers, Cincinnati: "Further Observations in the Use of Hy-gen Dioxide in the Treatment of Blepharitis Marginalis."

W. F. Barclay, Pittsburgh: "Milk, Its Production and Uses."

J. F. Barnhill, Indianapolis: "Regarding Hypertrophied Faucial ils."

J. M. Batten, Pittsburg: "Report of Five Cases of Heart Disease."

J. K. Bandny, St. Louis: "Some New Thoughts in the Treatment Locomotor Ataxia."

A. C. Bernays, St. Louis: Paper.

A. F. Bock, St. Louis: "The Surgical Treatment of Basedow's Dis-e."

John Young Brown, Chicago: "Some Anomalous Conditions of the nal Cord, with Report of Cases."

E. G. Carpenter, Cleveland: "Posterior Radicular Neuritis."

W. Cheatham, Louisville: "Of What Assistance Has the Serum atment of Diphtheria Been to the General Practitioner."

"Archibald Church, Chicago: "The Differential Diagnosis and atment of Cerebral Hemorrhage and Cerebral Softening."

J. W. Cokenower, Des Moines, Iowa: "Neurotic Deformities in ildren."

A. H. Cordier, Kansas City: "Ectopic Pregnancy, Clinical and hological Phases."

J. Homer Coulter, Chicago: Paper.

Ephraim Cutter, New York: "Beef—A War Paper."

Richard Dewey, Wauwatosa, Wis.: "Some Cases of Insanity in olescence."

Arch Dixon, Henderson, Ky.: "To Drain or Not to Drain."

Kennon Dunham, Cincinnati: "The Hypodermic Syringe and Its in Malaria."

C. Travis Drennan, Hot Springs, Ark.: "Report of a Case of Anes-sia Produced by Mercury, with Remarks."

Sherwood Dunn, Los Angeles: "Mothers and Daughters."

S. Rilus Eastman, Indianapolis: "Diagnosis by Inspection in the inary Tract."

A. R. Edwards, Chicago: "The Diagnosis of the Liver Based Upon tudy of Twenty-five Cases."

Jos. Eichberg, Cincinnati: "Typhoid Fever Treated Without Cold Baths."

C. Fisch, St. Louis: "The Antitoxic and Bactericidal Properties of the Serum of Horses Treated with Koch's New Tuberculin, (T. R.)

F. R. Fry, St. Louis: "Pressure Symptoms After Head Injuries."

A. H. Goelet, New York: "The Surgical Treatment of Fibroid Tumors of the Uterus."

Spencer Graves, St. Louis. "Appendicitis."

H. Hatch, Quincy, Ill.: "Severe Injuries from Electricity, and What Best to Do."

A. G. Hobbs: "Mouth-Breathing in Children."

"B. W. Holliday, Cleveland: "The Civic Aspect and Therapy of Some of the Common Neuroses."

A. F. House, Cleveland: "Symptoms and Surgical Treatment of Perforated Intestinal Ulcers."

W. H. Humiston, Cleveland: "Cocaine Anesthesia in Perineorrhapy."

C. C. Jacobs, Frostburg, Md.: "The Treatment of Obstructive Lesions of the Urinary Tract, Anterior to the Bladder, with Especial Reference to the Enlargement of the Prostate Gland.

A. C. Klebs, Chicago: Paper.

E. L. Larkins, Terra Haute, Ind.: "Appendicitis."

F. F. Lawrence, Columbus, O.: "Hysterectomy."

Elmer Lee, New York: "The Elimination of Empiricism in the Treatment of Pneumonia."

I. N. Love, St. Louis: "The Relations of the Secular Press to Medicine and the Public."

C. F. McGahan, Aiken, S. C.: "The Treatment of Pulmonary Phthisis."

A. H. Meisenbach, St. Louis: "A Plea for Early Operation in Cholelithiasis."

L. Harrison Mettler, Chicago: "Neuroses of Gout."

Robt. T. Morris, New York.: Paper.

Harold N. Moyer, Chicago: Paper.

A. M. Owen, Evansville, Ind.: "Cathartics and Constipation."

A. J. Ochsner, Chicago: "Treatment of Hernia in Old Men."

Curran Pope, Louisville, Ky.: "Sanitoriums a Necessary Factor in the Treatment of Chronic Diseases."

Joseph Price, Philadelphia: Paper.

J. Punton, Kansas City: "The Growing Needs of Medical Political Organization."

D. C. Ramsey, Mt. Vernon, Ind.: "Municipal Sanitation of Tuberculosis."

A. Ravogli, Cincinuati: "Tuberculin in Dermatology."

B. Merrill Rickets, Cincinnati: "Abdominal Incision for Ascites."

Byron Robinson, Chicago: "The Classification for Peritonitis."

Enno Sander, St. Louis: "The Carlsbad Springs of the United States of North America."

E. W. Saunders, St. Louis: "Therapeutic Properties of Infant Foods."

E. J. Senn, Chicago: "The Treatment of Suppurating Fistulous Tracts."

E. B. Smith, Detroit: "Experimental Surgery."

J. O. Stillson, Indianapolis: "Retro-bulbar Optic Neuritis."

L. Struss, St. Louis: "Primary Tuberculosis of the Rectum with Report of Cases."

J. A. Stucky, Lexington, Ky.: "The Treatment of Wounds by the Open Method."

H. M. Thomas, Chicago: "Experimental Work on the Penetrability of Vaporized Medicaments in the Air Passages."

K. K. Wheelock, Fort Wayne, Ind.: "Plastic Operation for Reforming Interpalpebral Space."

Alex. C. Wiener, Chicago: "Congenital Dislocation of the Hip."

Frank Woodbury, Philadelphia: Paper.

Titles of papers should be sent to Dr. Thomas Hunt Stucky, President, Louisville, or to Dr. H. W. Loeb, Secretary, St. Louis.

ORITUARY—T. W. MARKHAM, M.D.

On August 6th, 1897, Dr. T. W. Markham, the oldest practitioner in Walker County, Texas, he having practiced medicine in Huntsville forty-five years, died at the home of his sister, Mrs. E. C. Smither. He was born in Chesterfield County, Va., in 1823. His father, Osborne Markham, and mother, Emily Woodson, were both native Virginians. In 1835 the family moved to Tipton County, Tenn., where he attended school until 17 years of age. In 1842 he studied law under Archibald Wright, of Pulaski, Tenn., and later at Covington, was admitted to the bar in 1844. He never practiced law, but in 1846 commenced the study of medicine, first under Dr. J. A. Green, of Covington, and Dr. Samuel Reed, of Randolph; graduated in 1853 at Memphis Medical College, Profs. Merrill, Taylor and Quintard being about the only legible names now on the diploma. Was married to Miss Indiana Booker at Tipton, Tenn., May 28th, 1846. She died December 31st, 1860, leaving to him three children, Francis E. Markham and James M. Markham, of Huntsville, and Mrs. H. J. Brown, of Houston. He was an Odd Fellow, and served as Noble Grand. At his death he was a communicant of the Episcopal church. The Doctor was a man of rare mental attainments, and to within a few weeks of his death kept himself thoroughly posted on all the recent advances in the medical world. He was a warm, true friend, always extending the hand of encouragement and welcome to the younger members of the profession, and cheerfully assisted them in every way possible.

During the yellow fever epidemic in Huntsville, the Doctor was one

of the first to contract the disease, but so much was he attached to the people among whom he lived that before he was able to get into his buggy without assistance he began to visit and minister to those still in distress. He was the family physician of Gen. Sam Houston, and frequently mentioned many things of interest connected with this Texas hero. For fifteen years the Doctor was not outside of the bounds of his practice, which extended from twenty to thirty-five miles in all directions.

TWO NOTABLE MEETINGS in the interest of Medical Science are now among the occurrences of the past, and their anticipations have been realized. In both the International Medical Congress, held at Moscow in the latter part of August, and the meeting of the British Medical Association, at Montreal in the early days of September (the first time in its history it has convened outside the borders of Great Britain), it is gratifying to note that the medical men of this great Republic occupied both a prominent and creditable position. Their papers and discussions were as creditable, progressive, advanced and thorough as those of the ablest savants of the world.

TO THE MEDICAL PROFESSION:—It has recently been brought to my attention that several manufacturers have placed upon the market certain preparations as substitutes for Aseptolin, which have manifestly not been made strictly in accordance with my published formula, as an analysis fully proves. These defective solutions have not only failed in accomplishing the relief or cure of the patient, but in many cases, have caused abscess and other hurtful results. I must not be held responsible for these evils which directly result from the defective compounding of the preparation. The only preparation compounded strictly in accordance with my formula is "Aseptolin-Edson," prepared by the Asepta Chemical Company of New York, under my personal supervision.

New York, Oct. 1897. CYRUS EDSON.

ACUTE CYSTITIS AND CHRONIC CYSTITIS.—In addition to the mechanical treatment, usually essential in the management of disorders of this class, the administration of Lambert's Lithiated Hydrangea is often of the greatest service. A practitioner of wide experience says: "I have used Lambert's Lithiated Hydrangea on various persons affected with diverse and painful manifestations of chronic rheumatism, gout, lithiasis-urica, nephritic calculus and functional disturbances of the renal system, with excellent results, and I consider it a valuable remedy for normalizing the renal function, for promoting the active elimination of uric acid, and to calm the congestive conditions of the kidneys and of the urinary mucous membraue."

WORTH KNOWING.—The following strong tribute to the merit of Imperial Granum is from one of the most eminent physicians of Philadelphia: "I have had faithful trials made of Imperial Granum, and can announce it to the profession as a good, reliable food as a substitute for mother's milk in little babies afflicted with any digestive derangement, but especially in enteritis or what is commonly known as summer complaint." Physicians can obtain samples of this most valuable food free, charges prepaid, on application to John Carle & Sons, 153 Water Street, New York City.

NEUROSINE contains no morphine, chloral or opium, although it is the most powerful Neurotic attainable. The standard remedy for the treatment of all forms of nervous disturbances. Anodyne and hypnotic. The most efficient and trustworthy agent for the relief of hysteria, epilepsy, neurasthenia, mania, chorea, uterine congestion, neuralgia, migraine, delirium tremens, asthma, spormatorrhœa and all convulsive and reflex neuroses. The remedy par excellence in delirium and restlessness of fevers.

THE COLUMBUS PHÆTON Co. have an advertisement that will prove of interest to our readers. One of the best, most comfortable and durable vehicles we have ever used in this city was made by them. Send to them for illustrated catalogue and get their prices before buying. They will get out a new catalogue shortly. Be certain to send for it.

MELLIN'S FOOD, prepared as directed with fresh cow's milk, is as nearly analogous to woman's milk as can be made, and is the most perfect substitute. It will be found also exceedingly beneficial in debility and innutrition resulting from wasting and protracted disease. Repeated and continued trial only serves to increase its appreciation.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

THE usefulness of good Hypophosphites in pulmonary and strumous affections is generally agreed upon by the profession. We recommond to the notice of our readers the advertisement of "Robinson's Hypophosphites," also "Robinson's Hypophosphites with Wild Cherry Bark" (this is a new combination and will be found very valuable) are elegant and uniformly active preparations; the presence in them of quinine, strychnine, iron, etc., adding highly to their tonic value.

BACKACHE.—It is with pleasure that I give you my experience with Sanmetto: Mr. B., age 49 years, was a sufferer for years from backache, caused from inflamed and overworked kidneys. The pain was so great at times that an opiate had to be given to relieve it. I put Mr. B. on Sanmetto, teaspoonful three times a day. He has never complained of his back since. This has been three months ago.

Gold Hill, Ala. J. HARVEY BLEDSOE, M. D.

C. A. BRYCE. A.M., M.D., Professor of Surgery in the National College, Indianapolis, Ind.; surgeon-in-charge "The Hickories;" editor *Southern Clinic*; author "Bryce's Practice of Medicine," etc., etc., writes: "There came to my office in March, 1897, a man about 28 years of age, with the most extensive multiple ulcers of the legs that I ever saw. He said that he had tried for months to get relief, without benefit, and desired me to do what I could for him. His legs from the knees to the ankles were swollen and infiltrated. The entire surface was undergoing destructive changes, and circle-corroding ulcers were in all stages—all of them finally cutting cleanly through the skin down to the muscle. The case was clearly one of the late manifestations of syphilis implanted upon a scrofulous base. Locally, I used a cleansing and gently stimulating protective treatment, and placed the patient upon Elixir Iodo Bromide of Calcium Compound (Tilden), which he continued to use without intermission for over two months, with the result of effecting a complete cure. I gave him positively nothing at any time but the Elixir Iodo, and attribute his cure entirely to its great alterative properties and special adaptability to cases of this character. The results were simply astounding. I have used Elixir Iodo Bromide of Calcium Compound (Tilden) in a case of syphilitic lung involvement, curing the patient after he had been given up to die by an excellent practitioner."

THE SUPERIORITY OF SUGAR-COATED PILLS—"WARNER"—is demonstrated by a wealth of evidence. There is accumulated evidence of perfect results obtained by the medical profession which has been used for over forty years. There is evidence in the award granted by the Columbian Exposition, 1893, upon the following grounds: "The pills are of uniform size, the coating is perfect and protects the pills indefinitely, samples twenty-seven years old being shown readily soluble in hot or cold water." A soft pill mass protected indefinitely from atmospheric conditions is certainly the perfection of pill-making. There is evidence to be found every day by suspending a Warner pill on a mosquito netting in water from 98° to 100° and watching it dissolve. This test is conclusive, as the conditions most nearly approach the natural conditions present in pill medication. It will show the superior solubility of the Warner product over pills made by any other process. It will guide the pharmacist in his specifications.—*Monthly Retrospect of Medicine*.

APINE.—Dr. Theo. W. Peers, of Topeka, Kan., says: "I desire to two cases in which I used Papine with very gratifying results. The se was that of a man suffering with a non-operable case of epithe- of the left side of the face. He had been operated on by a sur- ere, but on recurrence of the disease went to a "cancer doctor," sed a paste which "burnt" out a large amount of tissue, and started ery rapid growth of the tumor. When he came into my hands, in r, 1895, the disease was so extensive that to make him comfortable I could hope for. Morphine, cocaine and codein were tried, but ch distressing after-effects that they had to be abandoned. I then using Papine, and two to four doses a day of a teaspoonful each im comfortable, with absolutely no unpleasant after-effects and with rease in the amount given per day. The rapidity of the growth creased, so that he lived until June, 1896, whereas, when I first m I did not think he could live three months. The other case was probable tubercular peritonitis, I used it for six months with no ffects, and always with relief to the patient. I know of no other ne that could be used for so long a time without unpleasant after- and without increasing the dose.—*Gaillard's Med. Jour.*, *Sept.* 1897.

ONSERVATISM IN THE TREATMENT OF DISEASES OF THE PELVIC OR- N WOMEN.—In the March issue of the *University Medical Magazine*, . Weir Mitchell, Wharton Sinkler, Charles K. Mills and others, in sing the relation of nervous disorders in women to pelvic diseases, 'We have never seen a case in which ablation of the ovaries and ation of menstruation cured an epilepsy, and in all our life have ith only four reflex epilipsies, none of which were from uterine n or tubal diseases, and we are inclined to think that some at least cases classed as epilepsies of ovarian are in reality excessively vio- sterical convulsions and we conclude that insanity is aggravated by enstrual epoch, whether normal or not, but that it is very rarely by that alone. A great deal of uterine and ovarian disease should the knife by the use of patient medical treatment—no surgery of lvis should be allowed without medical consultation," and by the vative administration of Dioviburnia, a uterine tonic and altera- ervine and antispasmodic, in these opinions they voiced the senti- of the great army of specialists and general practitioners.

RAUNSCHWEIGER-MUMME is a pure malt extract—a substitute for ood. The highest percentage of malt extract—the lowest percent- alcohol, yet a mild stimulant and an effective tonic. It is just what be furnished for nursing mothers, convalescents, and subjects of ia and nervous disorders resulting from impaired digestion and ork. It preserves and strengthens the well and restores to health k.

WAYNE'S ELIXIR.—For more than a dozen years repeated use of this preparation has given the most satisfactory results. It has been tried and is heartily recommended by the leading specialists in genito-urinary diseases in this and other cities. When prescribing, do not get it confused with ordinary mixtures of buchu, juniper, acetate of potash, etc.—It is not only different in formula, but also differs in action and effects from all analogous preparations; therefore, specify "*Wayne's Elixir*," and thus prevent unscrupulous druggists from substituting cheap and worthless mixtures that will not only disappoint you, but will injure your professional reputation. .

SANMETTO IN POST-GONORRHEAL GLEET.—Dr. Percy Newell, L. R. C. I., L. M., L. R. C. S. I., member British Medical Association, Crowborough, Sussex, England, writing, says: "I had a very obstinate case of gleet (post-gonorrhea) under my care, which did not show any sign of going, and was beginning to worry my patient. I had tried every remedy suggested in different works on surgery and therapeutics, but the wretched thing persisted. I put the patient on Sanmetto, a dose three times daily. In a week the thing was practically cured. I shall always stock Sanmetto in my surgery."

RHEUMATISM.—"Without pausing to consider the cause or causes of rheumatism [and the list of these which have from time to time been advanced by pathologists embrace almost every known cause of pathological change in the system), its successful treatment must be pursued on certain well recognized lines. There must be an eliminator for the removal of morbid secretions; there must be a stimulator of vital functions; there must be an alleviator of pain and a soother of inflammation. All of these indications are met by Tongaline, whose eliminating powers seek out the poisonous products of retained excretions or perverted secretions and neutralize them, or by rendering them soluble remove them by the natural excretory processes. Its Tonga subdues pain and induces sleep or rest; its salicylates, each in its own specific way, excite the emunctories to action and carry away the poisons."

AN ANTIDOTE TO THE GREAT SYMPTOMS.—The value of Antikamnia consists in its rapid effect in alleviating the suffering of the patient while more radical treatment is working a cure. While endeavoring to rid our patient of his neuralgia, rheumatism, typhoid, intermittent or malarial fever, we secure him relief from pain and intermission of fever. We have, in short, in this drug not a remedy for any disease, but a most useful antidote to the two great symptoms—Pain and Pyrexia.—*Medical Reprints, London, Eng.*

THE AMERICAN PEDIATRIC SOCIETY is making a collective in tion of Infantile Scurvy as occurring in North America, and s requests the co-operation of physicians, through their sending of of cases, whether these have already been published or not. No c be used in such a way as to interfere with its subsequent publica the observer. Blanks containing questions to be filled out will nished on application to any one of the committee. A final prir port of the investigation will be sent to those furnishing cases.

J. P. CROZER GRIFFITH, M. D., Chairm
123 S. 18th St., Philadel

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyp reports of cures effected at the clinics of the Universities of Bo Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas Cit Dallas, Texas, and New York, N. Y., sole agents.

Reviews and Book Notices.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES AND ANAL INDEX. A Yearly Report of the Progress of the General S Sciences throughout the World. Edited by CHAS. E. SAJOUS and Seventy Associate Editors, Assisted by Over Two Hundr responding Editors, Collaborators and Correspondents. Ill with Chromo-Lithographs, Engravings and Maps, in Five Ha Royal Octavo Volumes of about Five Hundred Pages Each. price, $15; Half Russia, $20. F. A. DAVIS & Co., Publishers delphia. 1896.

As a complete summing up of the advances and new de ments in the wide field of medical science for the past ye last edition of the Universal Annual is a most decided s The entire field throughout the world of medical literat been carefully gleaned by able, careful and competent coll tors, the whole being practically and systematically arran Dr. Sajous, brings it up to the highest standard of usef The intention is fully accomplished of enabling any physi possess, at a very moderate price, a complete Contempora tory of Universal Medicine.

When we consider that 1,214 periodical publications a books, monographs, and theses have been carefully examin

overhauled and their salient points in all that pertains to progress embodied in this work, we can readily see that a mass of information is herein contained of incalculable value. The Analytical Index and Cyclopedia of Treatment comprised in over 300 pages of Vol. V, gives a summary of every practical article quoted in the Annual proper and of all the criticisms introduced by the associate editors, the active principle, as it were, of the whole year's work.

Among the smaller items of improvement may be mentioned: Headings and side-headings are presented in large, black letters; all prescriptions are written out in full in the usual form, instead of running them into the text as heretofore; all therapeutic subjects have been collected in the fifth volume, so that it may be kept at hand for ready reference; and an increase in number of colored plates, the excellence and superiority of which is evident.

The general superiority of the volume for 1896 over its predecessors, excellent and almost perfect as they were, is quite manifest in every page, and notwithstanding the great increase in cost of production, the extra matter presented—over half a million words—the Analytical prefix, etc., the selling price of the work is not increased.

TRUE TO THEMSELVES. By ALEXANDER J. C. SKENE, M.D., LL.D. Cloth; 12mo., pp. 397; price, $1.25. F. TENNYSON NEELY, New York and London.

Works of fiction have had but limited space in our pages devoted to Book Reviews; however, so readable a book as the one written by the author of "Diseases of Women" and "Medical Gynecology," is well deserving the attention of our readers. Dr. Skene has used here the novel only as a means to convey certain positive principles. His argument is quite logical and well worthy of careful investigation. It is decidedly in the psychological and analytical line, and we can heartily commend it to medical readers who will do well occasionally to lay aside for a period their technical and scientific works and dally in the pleasant realms of so pleasing a romance. The characters are well drawn, and although the idiomatic vernacular of the land o' Scots is used, it has not been permitted to become burdensome. It contains an excellent engraving of the author as frontispiece.

SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

TED TO MEDICINE AND SURGERY.

UBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

. ROBERTS, M.D., - - Editor and Proprietor.

NASHVILLE, NOVEMBER, 1897. No. 11.

Original Communications.

HYSTERIA.*

J. R. BUIST, M.D., OF NASHVILLE, TENN.,
ssor of Nervous Diseases, Medical Department of Vanderbilt University.

gy, including the nervous system of man, is for the physical science to be studied by the exact scientific t distingnish our age. Yet there is a line that the neurology must cross; a realm above and beyond s. There are many operations of the mind, revealed activities of the cerebral cortex that we may study, the other functions of the brain. But this is not onnection between mind and matter. In order to y psycho-neurotic phenomena, we must assume that cts upon the cells, and creates new impulses. To hen a man hears an opprobious epithet, and flies into

*Nashville Academy of Medicine and published by request ty.

a rage, the first impression made on the cortex is through the external sense, but the consequent commotion in the nervous system, the congested blood vessels of the brain, eyes and face, are the immediate effect of the passion—the psychic storm, upon the cerebral cortex.

So we might call to mind many instances in which the ideal image—the conception or the mental faculty itself, initiates the first changes in the brain, whether normal or abnormal. The abstraction we sometimes fall into when in intense thought, during which so many functions of the brain seem to be arrested, and for the time being we are cut off from consciousness of the outer world, is a simple illustration of this mental independence.

Again, the remarkable phenomena of hypnotism can only be intelligently considered under the hypothesis of an independent mind and personality; so too, the varied manifestations of the hysterical state could not have received the satisfactory elucidation from the great neurologists of recent times without the recognition of this mental entity—this supervising personality outside of and above the physical constitution of the brain.

In order to better appreciate the present status of doctrine on the subject of hysteria, it may be well to give a brief resume of its ancient history. A large part of the following is borrowed from the chapter in "Dercum's Nervous Diseases," by Dr. J. H. Lloyd. The vast amount of literature on this singular and peculiar malady is remarkable, dating back to the birth of medicine itself. The unfortunate name it bears was assigned it in the time of Hippocrates, under an erroneous conception of its nature, and it has been, in part, due to the name that so many errors have flourished both among profession and laity for two thousand years. Derived from the Greek word *hystera*, the womb, it has always carried with it the doctrine that the disorders of this organ produced the general disease. Plato was perhaps the first who distinctly taught that the womb was an animal within an animal. This was accepted by Arætius, who lived in the second century, and according to him, this animal, the uterus, "ardently desired to engender children: That when it remained sterile, it controlled itself with difficulty, it is indignant, it wanders about the body obstructing the air passages, and arresting respiration, throwing the whole body in extreme

danger, and causing divers maladies." Further, "that it was possible to drive it down by presenting fetid odors to the nose, and to drive it up by presenting the same to the vulva." Such was the absurd and ridiculous teaching of the fathers of the healing art. This essential idea, in its ancient pathology, continued to be current through ages, and with succeeding centuries additional features were added to degrade the subject, and to brand the victim of the disease as the worst of criminals. It was not only believed that women alone were the subjects of hysteria, but that it was a purely sexual and libidinous vice, and found only in young women of erotic temperaments, practically sexual perverts. Such ideas dominated medical teaching even down to the Seventeenth century. During the earlier part of this century, one Carlos Piso advanced very correct views in regard to the nervous character of this affection, endeavoring to draw the distinction between it and syncope, epilepsy and other similar disorders. The great English anatomist, Willis, elaborated the doctrine of Piso, but the ancient uterine pathology was so firmly grounded that these advanced views were not accepted. Some years later, however, the discussion of the nature of hysteria was again opened, and the great name and influence of Sydenham supported the doctrine that hysteria was a mental and nervous disorder, in opposition to the uterine causation. After this, medical writers seem gradually to have lost confidence in the old and absurd views, and the modern doctrine may be said to have begun in the latter part of the last century. Dr. Benjamin Rush wrote intelligently of the affection and Sir Benjamin Brodie published a monogram of great force and clearness, doing much to extricate medicine from the degrading influence of traditional teaching on this subject. The credit, however, of establishing the modern, and now accepted doctrine, belongs to Prof. Briquet, who in 1859 published a masterly treatise, full of carefully collected data, and so became the immediate forerunner of the illustrious Charcot. To this great clinician, as is well known, is awarded the honor of giving us a complete, scientific exposition of the subject; bringing order out of chaos, light out of darkness, and forever setting aside what remained of the belief in the uterine and sexual factors, and giving it a place as a distinct morbid entity. Charcot's views found ready

acceptance among the French and are now wholly believed in. They have made slower progress in Germany and England, but such men as Gowers and Hirt, in the main, support them. In America all our foremost neurologists have given their allegiance to the French school. I suspect, however, that many of the profession in our country still have a vague and unsettled idea that the generative organs are the origin of the trouble, while the laity rather believe that it is for the most part simulation and deception.

A definition of clinical diseases is seldom satisfactory, yet the effort to define is helpful. From a recent authority of high repute as a neurologist, Dr. J. H. Lloyd, of Philadelphia, I quote the following: "Hysteria is a physcho-neurosis, of which the physical symptoms are the most conspicuous, tending to disguise the mental phenomena, and to simulate superficially the effects of various organic diseases." In further explanation of what we mean by the term, it may be said it is a genuine and profound affection of the cerebral centres—a perverted cerebration, without anatomical basis or structural alteration in any part. It is not a condition induced by a purposive deception or simulation. A heightened degree of "suggestibility" appears to belong to certain persons, and to allow certain external impressions, or internal ideas, to dominate the cerebral activities—suspending some functions, and bringing others into stronger relief."

Symptomatology.—We believe that we can present a better clinical picture of this malady by epitomizing the accounts given by the French school than in any other plan—remembering that clinicians of this school appear to make their divisions almost too refined, perhaps unnecessarily so. The initial symptom in many hysterics is a change in their psychical moods, noticeable to themselves and their nurses. In these states they lose the power to concentrate their thoughts upon their occupation; the patient is abstracted, depressed, and absorbed in reflection, and shuns society. After a day or two, loss of emotional equilibrium appears in the shape of immoderate and causeless weeping, alternating with spells of laughing; after a time there is noticed want of attention to dress, and a neglect of the proprieties of life, and finally the will-power seems almost lost.

cal phases, in typical or classical cases, are the fore-
he attack—developing two, three and four days
one of the distinctive marks between hysteria and
These prodomes conclude with an aura from some
e person and immediately she goes into a convul-
m. The most common aurse are the globus—the
he ovarian. Charcot has classified the symptoms
at belong to the paroxysm—hysteria major, the con-
ires; and those found in the interparoxysmal, or
period. Of course these symptoms are commen-
he nervous system itself. The paroxysm is again
four periods, the first of which sees the patient in
us state, the loss of consciousness, however, never
as in epilepsy or eclampsia—the whole frame is
eneral tonic spasm; the eyeballs roll in conjugate
it the tongue is never bitten as in epilepsy, and no
ie mouth. After a few minutes the scene changes
ims—sometimes only confined to one limb or to one
tation of vesical or anal sphincters. As the rigidity
ng begin to pass away, the eyelids shake and oscil-
n tears run down the cheeks, consciousness comes
ees, and there is no long deep sleep as follows the
ptic attack. This stage is known as epileptoid, or
period of the paroxysm.

ıd is one of "grand movements," and succeeds to
r an interval of ten to twenty minutes. It is char-
extravagant muscular movements, contortions,
rotesque performance, such as gave prominence to
s of hysteria in the Middle Ages. This was named
he state of "clownism."

iod passes into the third by the bodily actions
itudes of a dramatic style, and has given it among
the appellation of "passionate attitudes," and in
the emotional stage, par excellence. These bodily
would seem to be the results of a sort of mental
, "the acting out of a false sensory concept,
the patient as true;" under this delusive prompt-
ents may "throw themselves into the figure of the
e the position of defense, of ecstacy and of sexual

The fourth period follows the last in rather close succession, and is named the delirious stage. It is mostly an extension of the last—a prolonged and continuous period of emotional disturbance. Sadness is prominent; painful ideas dominate the brain; weeping and self-reproach abound; consciousness has fully returned, but this state of mind may continue for hours and even many days. Such exhibitions are thought by many to be far more common in France, yet we have histories of hysterics, with like manifestations, taken from all nations and in all ages. The important point to remember is that all irregular cases may be referred to the classical type, provided we make due allowance for the absence of certain stages, and a prolongation of the other stages. The majority of attacks are doubtless of an abortive, aberrant, and a typical character.

Now, the other class of symptoms, the intervallory or the stigmata (branded into the person as it implies), are of much greater value diagnostically, for they are more or less permanent, and are often unknown to the patient. They come on during a paroxysm and continue to another, or they may be found when no paroxysm of a convulsive character has occurred.

These evidences, the stigmata, may relate to disturbances in the motor, the sensory, the visceral, and the psychic functions. Either partial or complete paralysis, monoplegic, hemiplegic, or paraplegic may be found, and along with these contraction of certain muscular groups, or the latter may be seen independently; very often these paralytic limbs and contracted joints are found along with sensory anæsthesia, and especially in that class of hysterics who have suffered traumatism; so that a great deal of confusion in medico-legal cases have resulted from a lack of proper appreciation of the blended symptoms. The deep reflexes on the palsied limb are always exaggerated, while the skin reflex may be absent. The paralysis varies in its onset, sometimes sudden, and again developing slowly. The condition may continue for years or may disappear early, suddenly or slowly; may be transferred from one part to another; is not attended by atrophy, and never exhibits the reaction of degeneration. Hysterical paralysis is never as complete as that of organic brain palsy. When hemiplegia exists the face and tongue always escape. Left-sided hemiplegia is much more common than right-sided.

Contractures co-exist with the paralysis, or come on independently. This is a very obstinate and resisting sort of contraction—the limb being fixed as in a vice—but usually in sleep there is relaxation, and always under general anæsthesia. It may come and go; may transfer itself from one limb to another, but is a very valuable evidence in the diagnosis.

Sensory disturbances are often found in combination with the previous motor stigmata, but not always. These may be in the form of localized hyperæsthesia—sensitive spots—the touch of a feather exciting pain, or a neuralgia, headaches, etc.; but the most conspicuous and unmistakable indications are those in the form of anæsthesia. This impairment of sensation may involve the tactile, the pain and the temperature senses. It is a condition that must be sought for, for often it is unknown to the patient. An anæsthestic state of the exact half of the body will sometimes exist, involving the mucous membranes of that side. Again the anæsthesia is limited to a portion of a limb, segmental, and at other times in spots or patches of irregular shape and size. It is usually a profound loss of sensation—the skin and deep structure are involved so that a needle, or hot iron, can be thrust into the tissues without pain. These stigmata in especial were much noted in the Middle Ages, and received the name of "Marks of the Devil." The poor wretches were considered witches and doomed to severe punishment. It is stated that 50 per cent. of hysterics have this brand if it is looked for.

Involvement of the optic nerve is another interesting neurosis in hysteria. Amaurosis is rare, but amblyopia in some variety is not very infrequent. Occasionally the dark area in the visional field is in or near the centre. Most often there exists a concentric restriction—a limitation from the periphery. Litres, of France, and DeSchweinitz, of Philadelphia, have especially studied these phenomena. When the nature of this defect is established, and is combined with other motor or sensory stigmata, the conclusion in favor of hysteria is settled. Perversion of the color sense is also sometimes found.

Passing to the Etiology of this remarkable disorder, we must first remember that the inherited mental and cerebral constitution of the person is the underlying and indispensable condition —that a peculiarity of temperament is a predisposing cause of

the last importance, and it is doubtful if it is ever acquired, most probably always transmitted. In some instances transmission is direct from the father and mother, while in some others it is inherited by transformation, the ancestors being afflicted with some other forms of grave physchoses. A table compiled by Briquet gives "three hundred and fifty-one hysterics with the known histories of eleven hundred and three near relatives. Among these eleven hundred and three relatives were two hundred and fourteen hysterics, thirteen epileptics, sixteen insane, fourteen with convulsive disorders, three somnambulists, and twelve with other nervous affections, showing a ratio of 25 per cent., whereas in healthy non-hysterical women there is only $2\frac{1}{3}$ per cent. of neurotic relatives."

The influence of racial peculiarities in the production of hysteria, or rather the predisposition, existing in different nations, is a question discussed pro and con. Probably there is less difference than is usually supposed.

The influence of age is well established—children and young adults compose the larger proportion of patients. Briquet collected eighty-seven cases in children. The French author, Clopatt, gives a table of two hundred and seventy-two cases between the ages of 2 and 15 years; divided by sex, there were one hundred and seventy-six girls, ninety-six boys. It is also stated that among the females, a fifth commenced before puberty, one-third between 15 and 20. The number taken in first attack diminished rapidly after 20, and rare after 40 years.

No neurologist of the present day believes that females are alone the subjects, but the reports of the relative frequency of the two sexes vary much according to national standpoint and and preconceived ideas. In one or two of the largest German cliniques, the ratio given, is one male to ten females, whereas in Charcot's clinique, the proponderance is in favor of males; which is explained in Paris by the fact that males are more under the influence of two causes, trauma and alcohol. The five *exciting causes* having well recognized influence are as follows, given in the order of their importance:

First comes trauma—accidental injuries from machinery, railways, steamboats, storms, and lightning. The operations of these etiological factors do not depend upon the severity or

extent of the bodily injury. This may be slight and trivial. It seems that the mental shock has more to do with it—the sudden and frightful character of the catastrophe—as some writer expresses it, "mental traumatism."

Secondly, acute and chronic diseases are known to play an important role in the preduction of hysteria in the predisposed. The physical suffering, the depression and debility, and above all the favorable opportunity of intro-inspection afforded by confinement to bed, thereby encouraging that tendency to auto-suggestion, which may be said to form the basis of hysteria.

Thirdly, defective education, or to speak more correctly, mistaken kindness and indulgence in the rearing of the young, is a potent influence in the growth and development of this hysterical idiosyncrasy. In too many families, children are allowed to indulge their natural tendencies of character; the restraining and corrective power of education is not brought to bear, and the children instead of doing as they should, do as they feel like doing, all which tends to still further weaken a naturally feeble nervous system, to extinguish will-power, and increase the emotional side of our nature. The result is that many a bright young wonan at puberty falls into hysterics, surrounded by kind, sympathetic relatives, and the indulgent care of a home; she is doomed to drift on the stream of life, aimless, objectless and unhappy.

Another class of causes, familiar to all, are those occurrences that appeal to our moral emotional nature; joy or grief, religious feeling and family bereavement, are all calculated to develop hysterical manifestations in certain persons. In religious excitement, when large audiences are collected, the principle of imitation comes actively into play, as in the Middle Ages, when the disorder became an epidemic. The negroes of the South are also often thrown into hysterics by their emotional religion.

Fifth, another factor in inducing this psycho-neurotic state, and one which only of late years has attracted attention and been recognized, is the influence of toxæmias. The poison of lead, of mercury, of alcohol, and possibly of tobacco, have been shown to have a causal relation to this form of nervous malady.

The differential diagnosis in hysteria should not in the majority of cases give any serious difficulty. Very often the physi-

ognomy, so to speak, of the malady, suggests to the physician the character of case before him. Then a diagnosis by exclusion will often almost settle the question, at least give a strong probability of a functional disorder.

"True hysteria is a disease with a multiplicity of symptoms, the result, as it is believed, of the various phases of the patient's mind. This very multiplicity is a strong presumptive evidence in favor of hysteria." To distinguish between the paralytic conditions of organic brain and spinal lesions, as well as the convulsive seizures of other disorders, and the purely functional manifestation of hysteria, so as to reach accuracy, presupposes a wide range of knowledge concerning nervous diseases. Yet there are so many differences in the symptoms and their grouping, that a clear diagnosis should be expected. Palsies of hysteria are never as complete as in most cases of cerebral origin. It is very often that the hemiplegia is incomplete. It is rare to have loss of sensation along with the paralysis in organic brain diseases. We never have asphasia with hysterical paralysis. The latter is most usually left-sided. The contractures that follow brain palsy come later in the history of the case and are not reduced by an anæsthetic. Above all, the presence of extensive or limited areas of lost sensation combined with motor disturbance is pathognomic of the psychosis we are discussing. The ready relaxation of contractions under ether and the transference of either motor or sensory defects from one portion of the body to another, are strong diagnostic points.

Slight attacks of hysteria occur when there is neither a history or knowledge of any special cause, and may at times confuse us. For example, I saw a colored girl, 9 years old, to-day. She had always had good health. Night before last she awoke, became excited and frightened; seemed to have a spasm of the throat and clutched at her throat with both hands. This attack would last a few minutes and pass away, to return in five, ten or thirty minutes. Pulse was normal; no fever; respiration, in intervals, normal. There was no pre-existing disease; no suspicion of dog bite. Age, sex, and exclusion of organic disease led me to conclude that it was simply hysteria. The greatest error we are liable to fall into is to regard the case as one of neurasthenia or melancholia or insanity, or possibly one may suspect

, fraud and deceptions. A familiarity with the three
reful watching and the detection of the stigmata above
will sufficiently guard us from mistake.
amblyopia be discovered or errors in perception of
out visible disease of the retina, a sure evidence of
ll be present.
ional treatment of hysteria consists, first in removing all
provocative of the attacks; restoration to health; re-
ironic diseased states of the system; a tonic and in-
regimen when the patient is feeble and in low health.
er is done must always be so managed as to impress
s mind that this particular course is to cure him or
psychic change must follow the physical or there will
.

octrine now taught regarding the pathology of this
accepted, of course the treatment must be mainly
ental. We cannot put an enforced vacuity into the
nd, but we can indirectly substitute a new and differ-
f thought and desire. The most important way to
this is a complete change of environment—removal
and relatives to an institution in which she will re-
attention, but no sympathizing expressions and as
rsation about her ailments from attendants and doc-
ible. Travel and the society of sensible persons, all
cupations and diversions are of great service in direct-
ient's mind away from the morbid introspection that

e antidote and direct cure of these hysterical states,
ed to think, will be found in a mild and rational
I am not a hypnotist, but I think that after more is
psychology and mental states this power to control
will be of great use.

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DIFFERENTIAL DIAGNOSIS OF CHANCRE AND CHANCROID.*

BY W. FRANK GLENN, M.D., NASHVILLE, TENN.,
Professor of Genito-Urinary Diseases in the Medical Department of Vanderbilt University.

While I am aware of the fact that the germ of chancroid has not been discovered and cultivated artificially, and the disease has not yet been produced by inoculation with the artificial culture, yet I believe, clinically, it is established that chancroid is due to a specific virus which is always local in its operation. With this understanding of its nature, we will now consider the main points of differential diagnosis between it and the primary lesion of syphilis—*chancre*.

Nature.—A chancroid is a local ulcer, due to a local poison, and never is, nor never can become, a constitutional disease. A *chancre* is always a local manifestation (the first to show), of a constitutional disease and always means syphilis.

Period of Incubation.—Chancroid has no definite period of incubation—generally appears in three to five days—always appears under *ten* days. Chancre always has a distinct lapse of time (period of incubation) between the application of the poison and its manifestation. This time ranges from two to nine weeks, but is generally about twenty-one days.

Number of Sores.—Chancroid usually first appears as one sore, which rapidly increases in number. The number of sores may increase from day to day. Chancre almost always appears as one sore and remains one throughout. It occasionally appears as two or more, but the number never increases from day to day.

Location.—Chancroid is almost invariably located on the genitals. Chancre is found wherever the point of original contact takes place. Therefore the genitals, the lips, the nipples, fingers are often the seat of chancres.

Sensitiveness and Secretion.—Chancroid as a rule is extremely

*Read at Nashville Academy of Medicine,

tender and secretes abundantly a purulent or muco-purulent secretion. Chancre is rarely sensitive to any degree, secretion is scanty and generally of a sero-sanguineous nature.

Shape and Depth.—A chancroid is more or less rounded, frequently irregular, the edges are usually slightly undermined and loose. It rapidly perforates the entire thickness of mucous membrane or skin upon which it rests, but never goes deeper unless complicated.

A chancre is round or oval; its edges are smooth and adherent; its progress it slow, and it is superficial. It is almost always confined to the upper layers of the skin or membrane, and seldom if ever perforates its entire thickness.

Auto-Inoculation.—Chancroid being local in its nature, inoculation of other points which come in contact with its secretion can and often does take place. *Chancre*, being a local manifestation of systemic poison, cannot be inoculated or engrafted on any part of the body.

The patient already has syphilis and cannot be inoculated with a disease he already has; consequently the number of sores remains the same throughout.

Condition of the Lymphatics.—In chancroid the condition of the lymphatic glands of the groin, if involved, is always of an inflammatory character. They are tender, hot, congested and very prone to suppuration.

In *chancre* the glands of the groin in almost every instance (though not in all) become involved at any time within two weeks after the appearance of the sore. One or more glands become enlarged and very much hardened. They are not tender, only the first two or three days, if at all. If slightly tender, this soon disappears and leaves an isolated, hardened gland or glands. This typical *induration* may remain for many months, giving the patient no inconvenience. They rarely show any disposition to suppurate.

Results Without Treatment.—Without any treatment chancroid shows a tendency to spread rapidly; increasing in number; discharge becoming more abundant; becoming very sensitive and are liable to take on *phagedena*. *Chancre*, without treatment, shows an obstinate stand-still nature. Does not enlarge, or but very slowly; is not, as a rule, painful; has little or no secretion, and

gives the patient very little annoyance; often healing of its own accord. This slow progress often causes the patient to believe there is nothing seriously wrong with him.

Tested With Mercury.—If the nature of the sore and surrounding history is such that it is impossible (as it often is) to differentiate, then the patient should be put upon full sized doses of mercury for a week or ten days, and watched carefully during this period. If the sore improves under this administration and heals rapidly, it is a very strong proof that it is a chancre. But if it shows no disposition to get better, but goes on getting worse, it is pretty positive that it is not dependent upon the syphilitic virus for its existence. I regard this test as a very valuable aid in the differential diagnosis of chancre and chancriod.

In conclusion, let me say that the diagnosis of chancre (primary syphilis) is often a very difficult matter, and no one symptom can be relied on. But we should bring to bear all of the differentiating symptoms, and in that way can frequently arrive at a positive conclusion. I am aware that nearly all of our best authorities claim that it is possible, in any case, to positively diagnosticate a chancre, and therefore no treatment should be instituted until secondary manifestations have appeared to confirm the diagnosis.

While we cannot be too careful in making out a diagnosis of syphilis, yet I am sure in very many cases a complete diagnosis can be made in the primary stage, and as soon as we are sure the lesion depends upon the poison of syphilis, treatment should begin. It is useless to wait six or eight weeks for the germ to multiply when we feel absolutely sure the patient is suffering from syphilis. My rule is, never to begin treatment while any doubt as to the diagnosis remains, but as soon as I feel sure the patient has syphilis he is put upon proper treatment at once.

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Selections.

ON A NEW METHOD OF DISINFECTION OF LARGE ROOMS AND WARDS.*—In the beginning of the year 1892, Trillat[1] and I[2] independently made the first exact studies of the antiseptic properties of formaldehyde, and in the succeeding years many attempts were made to utilize the material for disinfection upon a large scale. The formaldehyde gas, to whose bactericide properties I called attention in my first communication, was naturally the form in which it was sought to be employed. But, simple as the problem appeared, there were great practical difficulties in the way of its solution. The easiest way was apparently to develop the gas by means of heat from the commercial solutions of formalin. It was soon apparent, however, that this method was an impossible one.

As soon as the concentration of the solution exceeded 40 per cent, a pulverizing of the formalin occurred, with a precipitation of solid paraformaldehyde. If the heating is continued, a solid, coherent mass forms in the bottom of the receptable employed, which finally begins to burn. To avoid this difficulty it has recently been attempted to obtain the gas from a solution of formalin in methylated alcohol, called holzin. This method, however, has several great disadvantages. The unavoidable spattering of the concentrated solution of formalin when heated may cause unpleasant accidents to persons in its neighborhood; the vaporization of large quantities of the costly wood alcohol are wasted. Finally, it is not possible with this apparatus to develop large quantities of formaldehyde vapors in

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*Paper read before the "Verein fur offentliche Gesundheitspflege," Berlin, April 26, 1897, by Hans Aronson, M.D. Translated from Zeitschrift fuer Hygiene and Infectionskrankheiten, Vol. XXV, June, 1897.

1 Comptes Rendus, T. CXIV., p. 1278.

2 Berliner klin. Wochenschrift, 1892, No. 30. The paper before the Berlin Medical Society was read before Trillat's communication appeared in the Comptes Rendus.

a short space of time; and this latter factor is of vital importance for a thorough disinfection.

In a second class of apparatus an attempt is made to develop the formaldehyde vapors by means of the oxidation of methyl alcohol itself. For this purpose a large number of lamps have been devised by Trillat, Bartels, Krell, Buester, Schulze, and others. Practical use of these lamps on a large scale has given unsatisfactory results (comp. Pfuhl[3]). This was to be expected when we remember that the oxidation of the methyl alcohol in these lamps is generally effected by means of glowing spirals of platinum wire, and the product of aldehyde, which alone is efficacious, forms necessarily only a small percentage of the methyl alcohol that is employed. By far the greater part of it is lost as carbonic oxide and carbonic acid gases. Apart from the cost, a large number of lamps are required to effectively disinfect even a small room, as Pfhul has proved by practical experimentation.[4] Nor does it seem proper that the formaldehyde should be thus made at home, on a small scale, not to speak of the danger from fire. Schepilewski was right when, in a recent communication, he doubted the possibility of disinfecting large areas by mean of formalin in this manner.

Good results in disinfection upon a large scale were first obtained by Roux and Trillat,[5] by means of a pressure apparatus constructed by the latter. In this a formaldehyde solution is greatly superheated under a pressure of three atmospheres. The deposition of paraformaldehyde is prevented by the addition of calcic chloride. But the apparatus has many disadvantages from a practical point of view. Apart from its great cost (for all pressure apparatus must be very solidly and strongly constructed), I consider it quite improper to give such autoclaves into the hands of laymen; and it would certainly be in contravention of our police regulations.

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3 Zeitschrift fuer Hygiene und Infectionskrankheiten, 1896, Vol. xxii, p. 339.

4 These remarks apply also to various American formaldehyde generators in which wood alcohol is used to produce vapors of formic aldehyde.

5 Annales de l'Institut Pasteur, 1896, Vol. x, p. 283; comp. also Bosc., p. 298.

simple apparatus, which could be easily handled by the
led, and by means of which sufficient quantities of for-
gas can be quickly developed for the disinfection of rooms
uses, is therefore a desideratum. Such a one has been
ucted by the chemical factory of E. Schering.[6] In view
great importance of the subject, I have gladly under-
the task of making a thorough bacteriological investiga-
its action. The solid polymerized formalin or paraform
also trioxymethylen) is used for the development of the
in vapors. The antiseptic properties of this body, which
t described at the "Verein für innere Medicin," March
94, depend upon the vapors which proceed from it at ordi-
emperatures. At the same time I demonstrated, by means
nerous experiments upon man and animals, that the polym-
formaldehyde was an almost non-poisonous body, and was
orne by children when given internally, even in large
ties. The use of this body as a formalin gas developer is
ppropriate. It has found to be more practical in many
o use the polymerized formaldehyde compressed into the
f pastils, rather than as a powder. (Each such formalin
which contains 100 per cent. of formaldehyde, weighs 1
e [15.4 grains]).
e action of the apparatus is as follows: The hot gases of
ation transform the paraformaldehyde into gaseous formal-
e, and are afterward thoroughly mixed with them. This
re of the vapors of formaldehyde and of combustion ena-
e necessary quantity of moisture to be present to hinder a
erization, and renders a thorough disinfection possible. In
ream of the gases of combustion a rapid distribution of
ective formaldehyde vapor into all portions of the space
disinfected takes place.
e apparatus consists of a cylindrical sheet-iron mantel,
h which is a spirit lamp with a suitable wick. In the
part of the mantel hangs a vessel, destined to contain the
lin pastils. The upper end of the vessel is provided with

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[6] Patents have been applied for on this method of disinfection.

[7] This paper has not been published in extenso. There are good
ts of it in the Munchener med. Woch., 1894, p. 239, and the Ber-
lin. Woch., p. 900.

a number of slits, through which the gases formed by the combustion of the alcohol (carbonic acid and watery vapor) must escape. In their passage through this vessel there is a thorough mixture of these vapors or combustion with the formalin vapors generated by the heating of the formalin pastils.

The mode of using the apparatus is extremely simple and safe. The disinfector is placed upon a sheet of tin on the floor of the room to be disinfected. In the apparatus that I employ from 100 to 150 pastils can be vaporized at once. For the production of greater quantities of formaldehyde vapor, several of these apparatuses must be used together.

The lamp is filled with ordinary alcohol (80 to 85 per cent); about twice as many cubic centimeters of the fluid being employed as there are pastils to be vaporized in the vessel (*i. e.*, 100 pastils require about 200 ccm. [7 ounces] of alcohol. The wicks should project but little above the necks of the burners, lest the apparatus get too hot. The vessel is to be filled with formalin pastils, and the disinfector placed over the lighted spirit lamp. Windows, registers, and other openings are to be carefully closed before the lamp is lit, and the keyholes should be stuffed with paper. After the room is closed the apparatus may be allowed to burn itself out.

I have experimented with this apparatus under conditions as similar as possible to those met with in practice. I used a room about 100 ccm. (3500 cubic feet) in size, 7.7 m. (25 feet) long; 4.0 m. (13 feet) broad, and 3.3 m. ($10\frac{3}{4}$ feet) high, in different portions of which the test objects were placed. I may mention at once that there was no difference in the result whether these test objects were placed on the floor of the room, suspended in its middle, or put near the ceiling. This demonstrates the even distribution of the formaldehyde vapors, due to the fact that its specific gravity is almost the same as that of the air.

For test objects I employed the staphyloccoccus, the streptococcus, the bacillus pyocyaneus, typhoid and diphtheria bacilli, anthrax spores, and tubercle bacilli. The test objects were prepared in various ways. Sterilized strips of gauze or wall-paper, or strips of linen or woolen stuff, were soaked in bouillon pure cultures of the first five varieties of bacteria, and were used moist or after drying in vacuum. Anthrax cultures containing

spores were scraped from the agar tubes, floated in distilled water, and used for the impregnation of threads of silk or gauze. In one experiment they were spread in a thick layer upon strips of sterilized wall-paper. The tubercle bacilli were used in the form of thick surface cultures on bouillon, and also in the shape of tubercular sputum, which was thickly smeared upon strips of gauze.

In the first series of experiments, two disinfectors, each provided with 100 pastils, were placed in the room, making about 2 grms. (30.8 grains) for each cubic meter (35 cubic feet). After the test objects were placed in position, the two lamps were lit, the room closed, and only opened again after twenty-four hours. On first entering it the formaldehyde odor was so intense that I could only remain in it for a very short time, on account of the great irritation to the eyes and throat. But opening the windows quickly dispelled the odor. The pieces of cloth, etc., were taken up with sterilized forceps, inoculated into bouillon tubes, placed in the incubator, and observed for weeks. In every case portions of the same test objects that had not been exposed to the formalin vapors were inoculated upon similar tubes to control the experiments; and in every case they showed an abundant growth. In a large number of the trials the test objects were washed in a dilute ammonia solution after the disinfection, to remove any traces of formaldehyde, which might interfere with the growth of the culture. Similar non-disinfected test-objects were treated with the same ammonia solution, and showed an undiminished vigor of growth.

The results of these numerous experiments[8] were that, with the exception of a few tubes which were contaminated with other bacteria during the process of inoculation, there was no bacterial growth in any of the tubes. To test the absolute sterilization of the anthrax gauze and silk threads, portions of them were inserted under the skins of guinea pigs. And while control animals treated in precisely the same way with non-disinfected material died after one and one-half to three days, those treated with the disinfected material remained entirely healthy.

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8 The details of these experiments which accompany the author's article in the Zeitsch. f. Hygine u. Infectionskrankheiten, June, 1897, are here, for the sake of brevity, omited.

The testing of the tubercle bacilli, both of the pure cultures and sputum, was done upon animals. Similar quantities of the untreated pure cultures of those that had remained for twenty-four hours in the disinfected room were rubbed up in a sterilized vessel with 6 ccm (1⅔ drachms) of water, and injected into the abdominal cavity of guinea pigs. The pieces of gauze with the sputum were dried and soaked in a similar manner in a few cubic centimeters of water, and similarly injected. The control animals died in from four to five weeks with typical tuberculosis, while the guinea pigs, treated with the disinfected material remained healthy; and, when I killed them, six weeks afterward, they showed no trace of tuberculosis.

The dust upon the floor of the room, and also that obtained by superficial scraping of its walls, proved to be entirely sterile after the twenty-four hours' disinfection.

A second series of experiments were made with one disinfector and 100 pastils, being one pastil per ccm. (35 cubic feet). All the none-spore containing material, staphylococci, streptococci, pyocyaneus, typhoid and diphtheria bacilli were killed after twenty-four hours' sterilization. But the anthrax spores were not in every case destroyed. Some of the strips of gauze and silk threads proved sterile; but others developed a culture. For practical purposes, however, this number of pastils may be entirely sufficient.

I further made a series of experiments regarding the penetrating power of the formaldehyde vapors. In accord with the earlier results of Vaillaird and Lèmoine,[9] I found that it was not very marked. Test objects wrapped in several layers of filter paper or thin muslin, were, however, disinfected. Infectious material placed in the midst of the feather stuffing of a pillow was not satisfactorily reached by the formalin vapors. Steam would certainly be preferable for beds, mattresses, and other similar articles. Disinfection with formalin vapor is, however, very suitable for clothes, rugs, hangings, etc., that are hung up in the room. This I proved by a number of experiments. It is important in such cases that all the surfaces are exposed as freely as possible to the air. If a test object, such as the strips of gauze impregnated with staphylococci or pyocy-

9 Annales de l'Institut Pasteur, 1896, Vol. x, p. 481.

ɔut deep in the pocket of a coat, and com
t least with 2 gmm. [30.8 grains]) of th
o the cubic meter (35 cubic feet) does
inty.
ery favorable feature of the disinfectant
e gas is the fact that clothing and furni
ked by it.
ry great importance also is the non-po
In many of my experiments I allowed g
remain in the room while disinfection
nd the animals perfectly well the next
nimals, there was not even, as might
ritative or inflammatory appearances in
remarkable fact, and one to which I c
ry first publication, that formaldehyde,
to the schizomycetes, is relatively in
ganisms. Even the hyphomycetes flouri
m containing an amount of formaldehy
ial development impossible.
e disinfection of living rooms there is n
ave in the remotest degree, as regards cer
ith that by means of formaldehyde ga
ne who has seen the process of cleansin
down with bread, as carried out by t
l agree with me that, however effective
cal point of view, it is absolutely ineff
e possibility of disinfecting rooms and
certainty by means of a simple, cheap,
naged method must be hailed as a great
is a further field for a smaller apparatu
in the deodorization of sick-rooms, wa
be effected with the formalin lamp by
ent of small quantities of formalin, such
(15.4 grains) in several hours. Such
merely symptomatic one, like done by
oils or essences, not a mere displacem
but is a chemical change of the bodi
'ormalin unites with most of the bad-s
tted hydrogen, mercaptan, ammonia,

etc.), to form odorless combinations.[10] The smaller apparatus has been used for this purpose among others at the Lazarus Hospital in Berlin, and has done good service there.

A large number of experiments have been done repeatedly, and always with the same results.

FIG. 1. FIG. 2.

[Schering has devised a more powerful disinfecting apparatus, constructed upon the same principle as the disinfectant and deodorizing lamp described and illustrated (see Fig. 1) in Dr. Aronson's article. It is specially adapted for disinfection on a large scale and in such cases where it is desirable to destroy the more resistent spores. By the use of the larger lamp, which is called "Scherings Formalin Disinfector" (see Fig. 2), a room may be rapidly filled with formaldehyde gas, by which the most resistent spores are, according to a large number of experiments, inevitably destroyed. The following are the directions for the use of "Schrering's Formalin Disinfector:"

The disinfector should be placed upon a sheet of tin or upon a tray, and set upon an uncovered table or other firm support in the center of the room that is to be disinfected. Windows, registers, and all other openings must be carefully closed. All cupboards and closets should be opened, and all articles of clothing, bed linen, etc., should be spread out, or better still, hung up. The keyholes should be stuffed with paper or rags.

The container of the disinfector is now filled with a greater or less number of formalin pastils, in accordance with the neces-

10 Schmidt, Pharmac. Zeitung, 1894, p. 55.

sities of the cases. For the disinfection of a medium-sized room, 30 feet long, 10 feet wide, 10 feet high, or, say, 3000 cubic feet, about 100 pastils, or the contents of one package of 5 boxes, are required.[11] The reservoir of the lamp is then filled three quarters full of alcohol, or if wood alcohol is used it should be only about half filled, and the filler cap is screwed on again. The wicks should be even with the level of the tubes, or at all events should not project more than 1 mm. ($\frac{1}{24}$) above them, so that the flames should not be too high and the apparrtus not get too hot. For the complete disinfection of larger rooms, two disinfectors should be opened.

After twelve to twenty-four hours the windows of the disinfected room should be left open for some time, and the odor of the generated gas will entirely disappear.

The *Disinfectant Lamp* renders excellent service where it becomes necessary *to thoroughly remove evil, foul and decomposing odors from a room.* Rooms containg food that is prone to decompose, as meat, game, milk, etc., are given a preservative influence extending from one to several days at the same time that they are deodorized.

HYDROZONE FOR DISORDERS OF THE GENITO-URINARY TRACT.—Dr. John Aulde, of Philadelphia (*Medical Times and Register*, of Philadelphia, Pa., December 5, 1896), states that about eight years ago he was forcibly impressed with the value of Peroxide of Hydrogen in a protracted case of gonorrhœa. The disease had persisted for three months despite the treatment of several attendants, there being a constant discharge and in addition, there was an orchitis present, the left testicle being about as large as a baseball. Treatment consisted of the local use of injections of equal parts of Peroxide of Hydrogen and

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11 For the complete destruction of anthrax spores, a procedure that will but rarely be required in practice, Dr. Hans Aronson found that about 2 pastils per cubic meter (35 cubic feet) were necessary—(Zeitschrift fuer Hygiene, June, 1897.) In the great majority of cases one-half to one pastil per cubic meter (35 cubic feet) will entirely suffice. After each disinfection it is well to remove the small amount of ash that is found in the reservoir.

moderately warm water, used at intervals of four hours, these injections being followed by a solution of arsenite of copper containing one milligram (one 65th grain) to the drachm, diluted with an equal quantity of hot water.

In a week the patient was able to return to his home in a distant State, the discharge from the urethra having entirely ceased, and pain and chordee having disappeared.

The author advises the same treatment for non-specific urethritis and gleet, but as Hydrozone is much stronger (two times) than the Peroxide, and perfectly harmless, he gives it the preference.

In vaginitis and vaginismus this treatment is of especial value. The treatment heretofore recommended by physicians consisting of hot vaginal douches, either with or without some alkali, as sodium bicarbonate, followed by the injection of a small quantity of Peroxide of Hydrogen (medicinal) in warm or cold water is superseded by the single application of a hot solution of Hydrozone, one part in eight; the patient should use a fountain syringe which should be hung upon the wall about six feet from the floor; the patient sits upon a suitable vessel, and introduces the rubber tip of the hose well back into the vagina, while the labia are compressed by the disengaged hand; this allows the solution to so distend the vagina as to bring it in contact with all the diseased tissue. The injection should be repeated twice in twenty-four hours.

In uterine diseases, where the solution must be brought into contact with the endometrium, the following treatment is pursued:

The patient is placed in the dorsal position, with the hips well elevated; an ordinary dilator is employed to distend the cervix, so as to admit the nozzle of the syringe and permit the free egress of the injected fluid. (A suitable return flow tube can be used to better advantage, the Fritsche's douche is the best that can be used.) The injection is then made, a liberal amount of the hot medicated solution being used.

There is need of caution in chronic cases, that the effervescence which attends the destruction of the unhealthy tissue does not force some of the debris into the Fallopian tubes. This is best avoided by using a large quantity of the solution, and after-

ıg the patient to assume the upright position.
brought to bear upon the uterus will cause
harge of all debris.
inary vaginal douche should always be tal
licated solution, as otherwise harm might ensu
nto the uterus of the vaginal secretion. The au
t the use of the vaginal douche if the cervi
here is an almost certain danger of the infe
being forced into the uterine cavity. To avoid
ould be cleansed by the local use of the medic
ıgh the speculum.
ɔr believes Hydrozone to be the best remedy
ring either in the male or female. The blad
hed out with the solution (one to eight), a s
g used at first in chronic cases, owing to the pai
tractions following the withdrawal of the solut
an be gradually increased. (A double current
:er should always be used for that purpose).
leet, and cystitis, the local treatment is oftenti
internal administration of hourly doses of calc
tenth of a grain.

ATMENT OF WOUNDS OF THE AIR PASSAGES.—I
British Medical Journal thirty-five cases of
of the throat. The air passages were injure
l in the remaining twenty-five cases the wound
superficial. The position of the wound wa
one case above the hyoid bone; in three cases in
membrane; in one case through the trachea
ugh the thyroid cartillage and crico-thyroid m
ounds); in one case through the trachea and c
ɔrane (two wounds.)
efully watching these cases, and the results of
r. Platt has arrived at the following conclusion
al wounds of the throat should be treated by
in all cases where the general condition of
its.
ptic precautions are most important.

3. If necessary, chloroform should be administered, and is perfectly safe.

4. Divided muscles should be sutured, and in bringing together the edges of the skin the inversion caused by the platysma muscle should be corrected.

5. The wound in the air passage should be completely closed.

6. In many cases it is quite safe to dispense with the use of a tracheotomy tube. If a tube be deemed necessary, it should not be introduced through the suicidal wound in the air passage, but through a fresh vertical cut at a lower level.

7. Silk is the best material for suturing the larynx or trachea.

8. During the after treatment it is necessary, except in certain special cases, to feed by a tube or by the rectum.

10. If the above methods of treatment be adopted, not only will a very large proportion of even dangerous and extensive wounds of the air passages recover, but the period of recovery will be greatly shortened, the patient will not be exposed to the same risks of secondary inflammatory complications, and he will be much less liable to the occurrence of permanent stenosis of the trachea, or the formation of an aerial fistula.—*Charlotte Medical Journal.*

NITRO-GLYCERINE FOR SCIATICA.—Troussevitch has cured several obstinate cases of sciatica by giving the following drops:

℞ Solution of nitro-glycerine (1 per cent)..... ℥ss.
Tincture of capsicum..... ℥iss.
Peppermint aq..... ℥iij.

M. Sig. Five drops thrice daily in a tablespoonful of water for the first three days, then ten drops thrice daily on the subsequent days.—*Practitioner.*

SULPHATE OF SODA AS A HEMOSTATIC.—J. Reverdin, of Geneva, states that he has often used with success sulphate of soda in small doses (one and a half grain every hour) in grave capillary hemorrhages, spontaneous or traumatic. The method is said to have been first employed by Kussmaul in hemophilia. Reverdin has made experiments to ascertain the mode of the

of remedy—given to animals (rabbits, guinea-pigs), with their food, or by intravenous injection, it seemed to more rapid the coagulation of the blood; used hypoder- y it had not the same effect.—*Ex.*

Editorial.

HE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.*

ty-third Annual Meeting at Louisville, Ky., October 5, 6, 7, 8, 1897.

e twenty-third annual meeting of this Society convened in Louis- 10 o'clock of the morning of October 5th.

e meeting was called to order by Dr. H. Horace Grant, Chairman Arrangements Committee. After prayer by the Rev. E. L. Powell, or Bradley was introduced, and spoke in behalf of Louisville and ky. Dr. Thomas Hunt Stucky, President of the Association, then d and delivered a most eloquent and pleasing address, in which in part as follows:

NTLEMEN: Seven years have passed since you were in Kentucky. a longer time than we would have wished, but the delay has only to heighten the pleasure we feel at your coming and increase mth of the welcome we now extend to you.

is spot, near the center of the Mississippi valley, seems indeed a ne for the meeting of the Mississippi Valley Medical Association. lel between the intellectual and the physical features of this con- tion of our country is at once suggested. From Minnesota to the e world's greatest channel of commerce sweeps with force. The l, financial and commercial future of the country lies between the nies and the Rockies. And here, too, I believe, will be found llectual forces which in the years to come will lead this country, ough it, the world.

e Valley of the Mississippi is an empire in itself, and its sons will s in the coming years. Narrowing this line of thought to our own on look at the champions set forth by us to win undying honor in rfare against suffering and death. In a million homes to-day s care is not missing, and there is happiness instead of mourning, Georgia gave to the world Robert Battey; Kentucky, Ephraim ell, and Alabama, J. Marion Sims, the father of gynecology. In s of general surgery what names are written in brighter letters ose of Gross, Miles, Scott, Hodgen, Brashear, Dudley, Yandell,

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pplied by Fassett's Medical Press Bureau.

and Briggs. In general medicine we look back to the Flints, Gaillard Thomas, Lunsford Yandell, Bush, Henry Dixon, T. S. Bell, and Harvey.

These men are of the past, it may be said. But are we retrograding? Think of Senn, Murphy, Bernays, Walker, Parker, Reed, Owen, Wyeth, Gibney, Humiston and our own beloved Mathews. Have we not cause for pride?

I have singled out these men with difficulty. Not because each and every one of them do not deserve eulogiums beyond the power to bestow, but there are in our ranks so many men of fine gifts and masterly attainments that it seems hardly fair to mention one without naming all. That a few do not stand out pre-eminent is not due to any lack of excellence; it is because the standing of general medicine is so high that the ablest do not tower above their fellows as they once did. To revert to the present gathering I miss in looking about me many familiar faces. They are the faces of men whose absence we would deplore from a selfish standpoint. But we honor them in their absence, even more than we would welcome their presence. For the missing ones are our brethren in the stricken cities farther south. They are fighting the good fight against the yellow scourge of their people, and are making one more proud chapter in the history of medicine in the Mississippi Valley. We would gladly have them with us, but their duty holds them at their posts of danger, and our regret at their absence is lessened by the knowledge of their brave well-doing.

Pardon my introduction of personal feeling, however, when I say that one man is missing from among us whose absence causes sorrow that is unqualified. Were there with us now, as in the past, that model of manliness, that sunny soul, whose like we shall not look on soon again—if Edward Palmer were still alive, the memories of your present visit would be brighter and more joyous in the years to come. In our crowded profession few men could leave such a gap and one so hard to fill. Many of you knew him in his professioual usefulness. More of you knew him as a man among men. You will, I am sure, share in our sorrow at his taking off which the passage of many months has not dulled and will echo this passing tribute to one we knew and loved so well.

And now, gentlemen, in conclusion, let me repeat that we are proud and happy to have you with us. We will hardly be able to convert you to the doctrine, which is a cardinal belief with every son of our soil, that the Lord devoted five and a half days to making Kentucky before He began on the rest of the world. Your stay will be too short, but we will do our best.

Drs. Love and Wheaton offered resolutions against the threatened quarantining of Louisville by the State of Indiana. The Scientific Sections were then organized—Medicine convening in Leiderkranz Hall, and the Surgical section in Scottish Rite Hall.

SURGICAL SECTION.

Plastic Operation Restoring Closed Lids.—By Dr. K. K. Wheelock, Fort Wayne, Ind. The author reported a case in which an eye had been

enucleated in 1881 as a result of smallpox. Artificial eyes have been worn for twelve years, when the socket had become so contracted that it was impossible to longer introduce the artificial eye. The author described the technique of the operation, which he performed for the restoration of the cavity to its normal size.

Dr. Stephenson said these are always most interesting cases. Those occurring as the result of burns usually give the most trouble in getting an artificial eye. Much can be done oftentimes by any method which will gradually stretch the tissues.

Dr. Wilder said there is no more difficult class of work in all ophthalmic surgery. The general surgeon should appreciate more the necessity of preserving every possible amount of the conjunctiva. Most patients want to wear an artificial eye too early after the enucleation.

Dr. Wheelock, in closing the discussion, remarked that if he had the same to do over again, he would operate entirely with the Thiersch graft. These should be applied from the tip of the finger, in that way they can be adapted to any part of the orbit.

The Removal of Adenoids in the Vault of Pharynx.—By Dr. L. C. Kline, Indianapolis. There is a great diversity of opinion in the use of anæsthetics for the removal of adenoids. The great majority of cases can be operated upon with equally good results by the use of cocaine. I prefer the gradual operation to that at one sitting. There is less danger of otitis and hemorrhage. The author then exhibited the forceps which he prefers to use. A mouth-gag is not used except when the anæsthetic is employed. In tubercular cases an application of icthyol is very beneficial. Various astringents can be used with some advantage, but surgery is the only sure relief.

Surgery of the Air-Passages in Children.—Dr. J. Homer Coulter said the subject is one of especial importance, because of the percentage of deaths from diseases of the air-passages during childhood, because the respiratory and circulatory functions are being crowded to their vital capacity, and because reflexes in childhood are more prominent and frequent than in adult life. The parents of to-day should be taught that, with our modern methods, technique and usually favorable prognosis, surgery in children is not the nightmare it formerly was. There can no longer be any question of the bad effect of nasal obstruction upon adjacent organs. Any of the causes of nasal obstruction in children will tend to septum deflection in adult life, and if for no other reason we are bound to give them the possible relief of our professional skill. As a matter of clinical fact catarrhal deafness is almost always due to nasal obstruction. The entire field for pathological conditions of the nose does not lie in the post-nasal space, nor is there any good reason why occlusion of the anterior chambers of the nose should not produce as many reflexes as does an hypertrophy of Luschka's tonsil.

Foreign bodies in the nose and throat and the method of their removal was then considered. The after-treatment of these cases of surgery is important and cannot often be left to parents with any degree of satisfaction.

Dr. Thomas suggested that many diseases in the air-passages in children are due to a systemic disturbance or to reflexes. Judgment to differentiate when to use surgery and when therapeutics is an absolute necessity.

Treatment of Wounds by the Open Method.—By Dr. J. B. Taulbee, of Mt. Sterling, Ky. The method is different from the plan of treating amputations of a quarter of a century ago. Confined to no particular class of wounds. A routine method is never a good one; hence, each individual case is made a case unto itself, both as to irrigation, kind or drainage, and whether or not a temporary drainage shall be applied.

Dr. Ochsner said the principle of the least possible irritation to the tissues in these abdominal wounds should always be observed. Large wounds will always heal primarily if (1) there is lack of irritation to the tissues; (2) exact coaptation; (3) the stitches are not drawn too tightly.

Dr. Lawrence suggested that it would be more reasonable to suppose a wound would be healthy if drainage is free. A properly cleansed private room at home, with a good nurse, is better than any general hospital. Silver wire, buried sutures, will both produce sinuses and as well atrophy of the muscle.

Dr. Bullock said it is difficult to harmonize the fact that the operator has less infection as he becomes expert if it is true that the infection may come from within as easily as from without.

Dr. Goldspohn said the only microbes that have indefinite life are tuberculosis and gonorrhœa. Primarily aseptic wounds should be treated as such, and not as open wounds.

Dr. Dunn said where we do not have germs, we cannot have pus. In over 2,000 abdominal section, which I have seen or done, there has not been a failure to secure primary union, and a stitch-hole abscess but in one case.

To Drain or Not to Drain.—By Dr. Arch Dixon, of Henderson, Ky. The author reviewed the sum of the arguments on the use of drainage in the peritoneal cavity, such as, healing is thereby retarded; drainage is not effective in removing infection; infection may occur through the drainage tube; the removal of the tube is painful; vesical complications are possible; hernia may result; frequent removal of the tube is necessary. Much depends upon the manner in which the operation is done.

Dr. Goldspohn called attention to the two styles of abdominal operations; one in which the smallest possible opentng is made, the other in which a large wound is used, explaining the advantages claimed for each style of operating.

Dr. Cordier said that if two cases exactly alike were taken and the operation, surroundings and care of each be identical, one drained the other not, we would almost invariably receive more satisfactory results in the one where drainage was used.

The paper was also discussed by Drs. Taulbee, Samuel, Sherrick and Lawrence.

Hysterectomy.—By Dr. F. F. Lawrence, of Columbus, Ohio,

what cases is Hysterectomy justifiable? We must consider (1) how
ould have died without it; (2) how many would have been hope-
alids without it; (3) how many could have been cured by other
(4) the remote conditions or reflex results in those upon whom it
n performed. Hysterectomy is ordinarily performed for cancer,
ynx, fibroma and myoma, tuberculosis and prolapsus. Hysterec-
r cancer is of doubtful utility, but when necessary should be made
abdominal route. In pus tubes, hysterectomy should be limited to
which the walls of the uterus are the seat of the disease. Sim-
ressions are not sufficient reason for the performance of hys-
ay.

all fibroids when involving the lower segment of the uterus only,
be treated tentatively.

the small fibroids are in the body of the uterus, they should be
by either curretting, removing the tubes and ovaries, or by hys-
ny, as the case may demand. If small fibroids occur near the
use, curretment with electricity is sufficient. In large fibroids
e menopause, hysterectomy is the only thing to be considered. In
a, or tuberculosis, hysterectomy is likewise the only thing to be
, because the removal of the ovaries and tubes does not get all of
ased tissue.

y method of operating is to be judged by (1) the safety from se-
(2) the preservation of a firm pelvic floor; (3) facility for oper-
(4) that one which affords the best satisfaction and general results
patient and operator.

. Goldspohn was opposed to removal of the uterus for septic dis-
ase in every case. The vaginal route should be more appreciated
American operators.

. Ochsner said while his experience in hysterectomy had been
le, yet he was becoming more and more careful about advising the
on of hysterectomy. In one case I did not advise operation, as I
ured it beyond the help of even hysterectomy. She was treated
ely and has since given birth to two children, and has herself
ed healthy ever since.

. Newman suggested that as we are able to perfect our technique
find better results.

ic Disease Without Local Symptoms.—Dr. Henry P. Newman, of
, Ill.

Pelvic disease even of an aggravated tyye is often present with-
iceable local symptoms; (2) reflex symptoms beginning in mere
nal disturbances may become so serious as to endanger life and
of the patient, and give rise to misdirected treatment, which does
ognize the causes of the real trouble; (3) an understanding of the
importance of pelvic irritation and certain obstinate and severe
n of remoter organs is essential to a correct diagnosis in many
(4) all cases of chronic invalidism in the female, a failure to ex-
elvic disease in the same manner as we exclude diseases of other

important organs is unscientific and reprehensive; (5) the cause of medicine will be advanced when practitioners make those comprehensive diagnoses, which seek to know the patient as a whole.

The paper was discussed by Drs. Lawrence, Goldspohn, and Dunn.

The Diagnosis of Surgical Disease of the Kidneys, Bladder, and Prostate.—By Dr. Bayard Holmes, of Chicago.

The author called attention to some methods of diagnosis of special value and novelty and related at length his experience in their applications, demonstrating by means of the Kasper-cystoscope his method of diagnosis of special value and novelty and related at length his experience in their applications, demonstrating by means of the Kasper-cystoscope his method of catheterizing the uterers. He further demonstrated that the kidney could be exactly localized by an auscultatory percussion.

Dr. Holmes' paper was discussed in connection with that of Dr. J. R. Eastman, of Indianapolis, on the subject of *Diagnosis by Inspection in the Urinary Tract.* The use of the cystoscope is particularly important in the male. Its value in diagnosing vesical calculus, foreign bodies, neoplasms and pathological conditions resulting from gonorrhea, locating fragments after lithalopaxy, etc., is most apparent. In the female, its range of usefulness is still wider and its application even more simple. The author described and demonstrated the difficulties and technique of catheterization of the ureters in a clear and interesting manner.

Dr. Bernays said he felt like a layman when listening to papers, showing such exactness of skill and technique in conjunction with such an amount of patience necessary to catheterize the ureters. It demonstrates the necessity of specialism in medicine.

Dr. Cordier said: I have recently made some new experiments with the X-rays in bladder work. I have, by placing a small photographic plate in the vagina and the ray above the abdomen, secured some very excellent, as well as interesting, photographs. In the male the plate can be placed in the rectum and similar results secured. Foreign bodies, or calculi, can be thus positively detected. The paper was also discussed by Drs. Dunn, Taulbee, Holmes and Eastman.

Primary Tuberculosis of the Rectum with Report of Cases.—By Leon Straus, M.D., of St. Louis, Mo. His conclusions were (1) primary tuberculosis of the rectum is not so infrequent as generally supposed; (2) it is surgical and not medical; (3) it cannot be diagnosed positively and invariably by the usual clinical symptoms; (4) the microscope must be employed; (5) local treatment will not cure these cases; only cured by thorough curettment or excision, or both; (6) some of the most hopeless cases are cured by repeated operations; (7) all suspicious cases should be subjected to the microscope; (8) we have sufficient evidence that the cases above are to all intents and purposes cured. The paper was discussed by Drs. Pennington and Ochsner.

Diseases of the Rectum and Sigmoid as a Factor in General Disturbances.—By. Dr. S. Pennington, of Chicago, Ill.

Undoubtedly, the materies morbi of a large number of somatic men-

tal and nervous diseases have their origin somewhere in the gastro-intestinal tract. At just what point in the canal is a somewhat mooted question. The importance of the rectum and sigmoid in many auto-intoxications is entirely overlooked and the consequent primal defect is not located.

Treatment of Hernia in Old Men.—By Dr. A. J. Ochsner, Chicago, Ill. It is a well known fact that hernias in men become more troublesome after the age of 50. This is attributable to the relaxation of tissue, tendency to obesity and lower vitality in general, according to most authorities; but I am convinced that the more important cause lies in the pressure exerted in evacuating the bladder and rectum, or the presence of an enlarged prostate. The author described his operation for the radical cure of hernia in connection with castration for enlarged prostate. In cases in which there is simply an hypertrophy, the gland subsequently decreases in size very rapidly, affording much relief. If the surgeon has perfect control of his methods, securing perfect asepsis, the operation is perfectly safe.

It is yet too early to positively determino whether or not these favorable results will be permanent, but we have every reason to believe that it will.

Post-Operative Hernia in Appendicitis Cases.—By Dr. Robert T. Morris, New York. Operators for appendicitis are now using a much smaller incision than formerly in order that they may avoid the unfortunate effects of hernia. These hernias are caused by the fact that the lines of muscle-traction at this point are different in the different muscles. A pad over the seat of operation induces hernia by inducing absorption of the new connective tissue as it is being formed. The margin of each muscle should be separated with the greatest care when operating, likewise care should be taken in dividing the peritoneum. In closing the wound each different layer of muscular tissue as well as the peritoneum and fascia should be united with the same tissue from which it was separated in the beginning. Thus the lines of muscular traction will not be disturbed and hernia less likely to be produced. No bandage or pad should be applied. The patient should be kept in bed for at least twenty-one days following the operation.

Some Remarks on Appendicitis.—By Dr. J. Y. Brown, St. Louis, Mo. Conservatism has given place to knowledge in this disease. This knowledge is sufficiently comprehensive and accurate to give us a satisfactory working basis. We must isolate in infectious appendicitis for the same reason that we isolate a case of diphtheria.

Dr. Morris, in discussing the paper, said tbat making a date for operation in a case of appendicitis was certainly undesirable.

We cannot always wait until the third day. The rigor means that the toxines are going into circulation, and are producing an impression upon the sympathetic system.

Tuberculin in Dermatology.—By Dr. A. Ravogli, Cincinnati, Ohio. From my experience, I am led to conclude that (1) Tuberculin is a val-

uable help in dermatology, both as a diagnostic and therapeutic measure; (2) that in lupus, it acts remarkably well as a systemic treatment, especially in conjunction with other means for the purpose of reducing the infiltrations; (3) that in a large number of injections, I have never had any bad effects, (4) that the old tuberculin has given me more marked reaction both general and local than does the new; (5) that in cases, where no other remedy had any influence, the tuberculin promptly caused a disappearance of the eruption, healing of the ulcerations and a general improvement in the condition; (6) that if relapses do occur, after ceasing the use of the remedy, we are not justified in blaming the remedy therefor; (7) to insure recovery it must be used in small doses for a long time, allowing but short intervals.

[*To be concluded in December number.*]

THE TRI-STATES MEDICAL ASSOCIATION OF ALABAMA, GEORGIA AND TENNESSEE.

This active and progressive organization of the medical men of Alabama, Georgia and Tennessee, held a very interesting and enjoyable meeting on the 12th, 13th and 14th of October, in Nashville. The meeting was called to order by the President, Dr. W. F. Westmoreland, of Georgia, at 10 A. M., Tuesday, in the comfortable little auditorium of the Tulane Hotel. After prayer by Rev. J. B. Hawthorn, an Address of Welcome was delivered as he only can, by Hon. Rob't L. Taylor. Dr. Westmoreland replied to the address of welcome, and then as the first order of business, proceeded to give some very excellent remarks on the subject of carcinoma of the breast, detailing Halstead's operation, and calling attention to the prime necessity of removing every vestige of malignant growth or infection. The paper was discussed by Drs. Sherwood Dunn and R. M. Cunningham.

The other papers and addresses that followed during the several sessions were as follows:

An extemperaneous lecture on Psychology, by Dr. J. B. Cowan, of Tullahoma, which was discussed by Drs. G. W. Drake, W. F. Westmoreland, W. Frank Glenn, Paul F. Eve, Dunn, and Wm. Jas. Evans.

A paper by Dr. Seale Harris on Vaccination, and the Antiseptic Treatment of Small-pox, as a method of preventing pitting and secondary infection, fever, etc. Discussed by Drs. Cunningham, F. T. Smith, Cowan and Harris.

The Pathology and Diagnosis of Early Phthisis, by Dr. L. P. Barbour, of Tullahoma; discussed by Drs. Paul Paquin, Dunn, Boyd, Padgett and Westmoreland.

Sero-Therapy in Tuberculosis, by Dr. Paul Paquin, of St. Louis, Mo., in which he said, "the use of serum seems to promise much, as all other remedies have failed. Tuberculosis is a mixed infection, and, with the bacilli, are found other germs. The nature of the mixed infection should

be determined by the microscope. This is as important as the use of the microscope in the early stage. There is no one treatment applicable to all cases of tuberculosis. In mixed infection the serum should be prepared to meet the case. Hygienic measures should be employed and climate considered. The altitude is of little importance." He advocated hydropathy, massage and dieting. Sugar, fruits and cream was better than cod liver oil. Fish and eggs were good food. Whisky and tobacco should be prohibited.

Drs. R. M. Cunningham, L. B. Graddy, J. A. Witherspoon and L. P. Barbour discussed the paper at length.

The Causes, Diagnosis and Prognosis of Valvular Diseases of the Heart was the title of the paper read by Dr. Hazle Padgett, of Columbia, Tenn.

Appendicitis, by Dr. J. A. Goggans, of Alexandria City, Ala.

The Relation of the Cause to the Immediate and Remote Results of Fracture, by Dr. R. M. Cunningham, of Birmingham, Ala., was discussed by Drs. Brown, Murfree, Padgett and Stewart.

An address on Treatment of Cancer of the Rectum, by Dr. J. M. Matthews, of Louisville, Ky., was discussed by Drs. Cowan, Davis and Brown.

Metatarsalgia, or Morton's Painful Toe, was the title of a paper read by Dr. Geo. S. Brown, of Birmingham, Ala.

The Pathology of Functional Nervous Diseases, by Dr. F. X. Dercum, of Philadelphia, was the title of a most excellent paper that attracted considerable attention, and was discussed by Drs. Cowan, McMurtry, Cunningham and Savage.

The Application of Plaster Dressing was exemplified by practical application by Dr. F. B. Sloan, of Cowan, and commanded favorable comment by Drs. Duncan Eve and Cunningham. Dr. Sloan placed a subject in his apparatus, which consists of a canton-flannel hammock, which becomes a part of the dressing, and proceeded to apply the necessary bandages, showing its advantages over the method of suspension by the neck in applying the plaster-jacket, and its applicability in applying plaster dressings to the body or lower extremities.

The Treatment of Typhoid Fever was read by Dr. John A. Larrabee, of Louisville, Ky., in which he advocated strongly intestinal antisepsis, commending highly the aromatics, etc. It was discussed by Drs. Duncan, Sutton, Duggan, Drake and Witherspoon.

A paper on the Use of the Cystoscope in the Diagnosis of Bladder and Urethral Diseases was read by Dr. W. R. Blue, of Louisville, and discussed by Dr. W. F. Glenn.

Dr. W. D. Haggard, Jr., of Nashville, read a paper on the Evolution of Treatment of the Stump in Appendicitis, and was followed by a general discussion on appendicitis, participated in by Drs. Davis, Witherspoon, Frank, and Goggans.

Hysterectomy, Dr. Louis Frank, of Louisville, Ky., brought out a free discussion, participated in Drs. McMurty and Dunn, agreeing with

the author in giving priority to the abdominal route, while Dr. W. D. Haggard, Jr., was not only enthusiastic, but logical in his advocacy of the vaginal method.

A paper on Abdominal Metabolism, was read by Dr. G. W. Drake, of Chattanooga, and discussed by Dr. Cowan.

Dr. L. B. Graddy presented a patient on whom he had operated for Purulent Infection of the Brain Due to Acute Inflammation of the Middle Ear. The history of the case was given, the operation detailed, and after the patient was examined by a number of the gentleman present, the case was discussed by Drs. Steele and Smith.

A paper on the Practical Application of the Microscope in Every Day Practice, by Dr. J. W. Hooper, of New Site, Ala., elicited some very witty and amusing remarks on the part of Dr. Cunningham.

A Bouquet of Remedial Agencies, by Dr. Jno. P. Stewart, consisted of the clinical reports of four cases of nervous diseases related in a most graphic an entertaining manner in which he called marked attention to the mental effects produced on a patient as no less essential than the administration of drugs. It brought up again the subject of *psychology*, and the effects of mind over matter, materialism, etc., in which quite a number of those present participated.

A paper on Formaldehyde as a Disinfectant was read by Dr. C. M. Drake, of Atlanta, and discussed by Dr. Frank Trester Smith and Dr. J. W. Hooper.

Dr. Drake introduced the following resolutions, which were adopted:

Resolved, that the recent outburst of yellow fever in the South and the numerous conflicting State and municipal quarantine regulations, emphasize the great need of national quarantine laws, which are uniform and protective, and

Resolved, that the Tri-State Medical Association, in convention assembled, urge upon the members of Congress the need of laws governing quarantine in the development of cholera, fever, small-pox and the plague.

The evening of Tuesday was spent by the members at the Centennial Exposition, and also the afternoon of Wednesday, where a luncheon tendered by the Nashville physicians to the visiting members at the Lion Roof Garden, was participated in by about 200 members and their wives. Dr. W. D. Haggard, Jr., served most admirably as toast-master, and excellent remarks were made by Drs. Cowan, Matthews, Paquin, and others.

At the close of the exercises on Wednesday evening the X-Rays were exhibited by means of a very powerful apparatus, and broken bones, deformities, etc., as well as the outlines of the heart, and the movements of the diaphragm were made very apparent.

The meeting altogether was a most excellent one; the papers and addresses were able and fully up with the most advanced thought and progressive ideas of the day, and elicited much beneficial discussion and elucidative comment.

The officers elected for the ensuing year were as follows: President,

J. A. Goggans, Alexander City, Ala.; Vice Presidents, Andrew Boyd, Scottsboro, Ala.; G. W. Drake, Chattanooga; C. M. Drake, Atlanta; Secretary, Frank Trester Smith, Chattanooga; Treasurer, George R. West, Chattanooga, George S. Brown, of Birmingham, was elected Chairman of the Committee on Arrangements. The next place of meeting: Birmingham, Ala.

OBITUARY—WM. P. JONES, M.D.—This distinguished physician, true Christian gentleman and most reputable citizen died, at his residence in this city Saturday, September 25th, in the 78th year of his age. Although he had been in failing health for some time, he was able to be up and about until only a few days before his death, having attended prayer-meeting on Wednesday evening preceding his death.

He was born in Adair County, Ky., and came to Nashville in 1853. His father, William Jones, served in the war of 1812, and was with Gen. Jackson at the battle of New Orleans. Dr. Jones was brought up on his father's farm, and during intervals of work devoted his time to the study of medicine, for which he early showed a fondness and correct appreciation.

At the age of 20 years he entered the Louisville Medical Institute, subsequently receiving the degree of M.D. from the Medical College of Ohio, at Cincinnati, and from the Memphis Medical College. After several years of practice, he became the editor of the *Southern Journal of Medical and Physical Science.* In 1853 he established the *Parlor Visitor*, and edited it until the war. In 1858, in company with Drs. John H. Callender, Thomas L. Maddin, T. A. Atchison, John P. Ford and others, he assisted in organizing the Shelby Medical College, in which he was assigned the chair of materica medica. The Academy Hospital, the first established in Nashville after the arrival of the Union forces, was put under the charge of Dr. Jones. In 1862 he was chosen superintendent of the Tennessee Hospital for the Insane.

To him, more than to any other man, belongs the credit of the establishment of an insane asylum for the negro, the first of its kind in this country, and possibly of its kind in the world. It was through his repeated and unceasing efforts before the General Assembly, ably seconded by Judge E. H. East, President of the Board of Trustees, that the appropriation was finally made for the establishment of the asylum.

Dr. Jones was at one time a member of the City Council and was at one time president of that body. He has served in the capacity of director of the First National Bank, of the Capital City Bank, of the State Prison, and was a member of the State Board of Education, trustee in three universities, and at the time of his death was President of the Faculty of the University of Tennessee.

Throughout his long and useful career he had zealously advocated the right and been active in the promotion of everything which he considered to be for the good of his city and State. For the passage of good

bills by the Legislature Dr. Jones has always been ready to do all in his power, and many good laws have been given to the people of Tennessee which otherwise might have gone down in defeat had they not been championed by his strong arm.

In 1873 Dr. Jones was elected to the State Senate from this county and was made chairman of the Public School Committee. In this capacity he was instrumental in the enactment of some of the most humane and important laws which are on the statute books. One of the most prominent of the laws passed while he was chairman of the Educational Committee was that which provides proper educational advantages for all the children of the State, but separate schools for white and colored children.

Dr. Jones also introduced and secured the passage of a bill which provided for the building of two additional State institutions for the insane, one in the Eastern and one in the Western Division of the State. He also introduced a bill providing for a Normal school or schools in this State, for which aa appropriation should be made from the Treasury. The bill failed of passage at the time, owing to the fact that it called for an appropriation from the Treasury. Later his son-in-law, Samuel Y. Caldwell, assisted in the preparation of this bill, which was the starting point of the Peabody Normal College.

Dr. Jones was postmaster of Nashville for two terms, being first appointed by Rutherford B. Hayes in 1877. He served for a time under four Presidents. He was a member of the American Medical Association; of the Association of Medical Superintendents of American Institutions for the Insane; the American Association for the Advancement of Science, and the Tennessee State Medical Society.

For a numbors of years he was professor of Psychology and Mental Diseases in the Medical Department of the University of Tennessee, and was President of its faculty from the organization of this school as the Nashville Medical College and after its connection with the State University as its medical department until the day of his death, and to his active interest, wise and prudent counsel and advice, much of the success of this prosperous and progressive school is due.

In 1851 he was married to Miss Jane Elizabeth Curry of this city, who survives him, together with the following children: Mrs. Samuel Y. Caldwell, Quintard L. Jones, Mrs. Mary Bell Wheeler, Arthur Jones, Miss Medora Jones and Miss Roberta Jones.

In the death of Dr. Jones the city has suffered the loss of one who has always been ready, by word and deed, to promote every good work, and one who has faithfully and steadily endeavored, with an eye single to the good of others, instead of to his own advantage.

At a meeting of the physicians of the city, held in the hall of the Nashville Academy of Medicine, Sunday, September 26th, at 4 P. M., to take action in regard to the death of Dr. W. P. Jones, on motion Dr. W. D. Haggard, Sr., was called to the chair and Drs. Deering J. Roberts, Duncan Eve, Thomas L. Maddin, G. C. Savage and J. Bunyan Stevens, was appointed to draw up suitable resolntions. The following were reported and unanimously adopted:

WHEREAS, The medical profession in particular, and the city of Nashville and the State of Tennessee in general, have rarely if ever sustained the loss of a more reputable, honorable and useful man than our late associate, Dr. William Palmer Jones. Born in Adair county, Ky., Oct. 17, 1819, and taking up his residence in the capital city of our State nearly half a century ago, his more than three score years and ten have ever been marked by repeated and continued evidences of every characteristic of a true Christian gentleman. As a practitioner of medicine, as a surgeon in charge of a military hospital, as a superintendent of a great State charity devoted to the care of the most unfortunate of its citizens, as a medical teacher, as a medical editor, as a member of regular medical organizations, local, State and national, as a lawmaker of his State, as a trusted official of the National Government, and in his every act and deed in his social, commercial and political intercourse with his fellow-man, it could be said of him: "He was an honest man." True to his convictions as to what was right, but not obtrusive or offensive in their defense and support, kindly, genial and courteous, modest and humane, generous, sincere, warm-hearted and charitable, his public and private life, his daily walk at home and abroad throughout his long and useful career, are most worthy of emulation; therefore, be it

Resolved, That in tendering to his bereaved relatives and friends our most sincere sympathies, we couple them with the kindly assurances of our highest esteem for our former associate, and our firm belief that as for him

"The strife is o'er, the battle done;
The victory of life is won;
The song of triumph has begun."

It was moved and adopted that a copy be furnished the family of the deceased, and that the city papers and medical journals be requested to publish the same.

Appropriate and touching remarks on the life and character of the deceased were made by Drs. Paul F. Eve, W. A. Atchison, Jas. P. Gray, and Thomas L. Maddin.

The Faculty of the Medical Department of the University of Tennessee adopted suitable resolutions, which were published in the city papers.

SOLUBILITY THAT IS SOLUBILITY.—"If it's a pill made by William R. Warner & Co. it's soluble." There are only a few words in the above sentence, yet they are words which will impress all who read them. The theme is not a new one. The name "Warner" has long had the word "solubility" intimately associated with it. While we congratulate Messrs. Wm. R. Warner & Co. upon the perfect preparations bearing their name, we cannot but state we do not see why they should not be perfect. Forty-one years in business constitutes a period, during which a progressive house should be able to give to the profession perfect prep-

arations. The pills made thirty years ago and exhibited at the American Medical Convention, in Philadelphia, proved to be as perfect and soluble as the day they were made. The following is suggestive that Messrs. Wm. R. Warner & Co. have been very successful.

LIBERTY, OHIO, June 9th, 1897.

MESSRS. WM. R. WARNER & Co., Philadelphia.

Gentlemen:—Last winter I unearthed a small vial of your Aloin Granules that by chance had been stowed away for *twelve years*. Having always used your Aloin Granules in my practice I of course used these, and, as far as I could determine, *they were as efficient as the day they were made*. I tried them on myself several times with results as good as could be wished for. I have kept a few as a curiosity. They are O. K.

Very truly, J. H. ADAIR.

NON-DESCRIPTIVE.—The practitioner frequently comes in contact with women whose ailment is non-descriptive; they are depressed, have forebodings, and feel that their entire system is out of order, nerves completely unstrung, pains, aches, and a general feeling of lassitude and debility. The physician being unable to perceive any positive symptoms indicating other than a normal condition, although he recognizes something must be done to satisfy his patient until he is able to locate the cause. In such non-descriptive cases Dioviburnia combined with Neurosine will usually, after a week or ten days, give entire relief.

℞ Neurosine..... ℥ii
Dioviburnia..... ℥iv

M. Sig.: Tablespoonful in wineglass of water every three hours.

There can be no detrimental after-effects, as neither of these products contain any opium or other deleterious drugs.

BRAUNSCHWEIGER MUMME is one of the best liquid malt extracts we have ever tried. It is exceedingly palatable as well as nourishing, containing only a very limited percentage of alcohol—yet it is a mild stimulant and will be tolerated by the weakest stomach, and comes into play with most satisfactory results in acutes diseases, and chronic conditions when solid food is not admissible. Try it in your cases of impaired digestion, insomnia, and want of nerve-force from over-work.

DOCTOR:—You want the facts about hypnotism.

You want to test suggestive therapeutics.

You want *The Hypnotic Magazine*, 10 cents a copy, $1 a year, including premium book on "Suggestive Therapeutics." PSYCHIC PUBLISHING Co., 56 Fifth Ave., Chicago.

THE RELIEF OF PAIN is the title of a little pamphlet issued by Dr. W. R. Hayden that is well worth reading. A postal card request mailed to The New York Pharmaceutical Co., Bedford Springs, Mass., will no doubt cause it to be sent to you.

EVERY PHYSICIAN who uses electricity should send for a copy of *The Electro-Therapist*, a monthly journal devoted to electro-therapeutics for the general practitioner. Write the editor, Wm. F. Howe, M.D., Indianapolis, Ind., mentioning this journal and he will send you sample copies gratis.

NOTWITHSTANDING the large number of Hypophosphites on the market, it is quite difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including Iron, Quinine, and Strychnine, etc., in perfect solution, and is not liable to the formation of fungous growths.

Reviews and Book Notices.

TUBERCULOSIS OF THE GENITO-URINARY ORGANS, MALE AND FEMALE. By N. SENN, M.D., Ph.D., LL.D., Professor of Surgery and Clinical Surgery, Rush Medical College; Attending Surgeon to Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital, Chicago. Illustrated, 8vo., cloth, pp. 317; price, $3 net. W. B. SAUNDERS, 925 Walnut Street, Philadelphia, Publishers. 1897.

This most excellent volume, filling a gap in medical literature, will be appreciated by all who desire a logical statement of facts and a practical exemplification of clinical results and experience in a special class of diseases involving the genito-urinary organs, frequent, distressing, and only too often fatal. Especial attention has been given to the symptoms, pathology, diagnosis, and medical and surgical therapeutics; the latter being at present in a far from satisfactory state, the opinions and views of observers of large experience are liberally quoted, to which are added the results of the author's wide clinical observation.

It is in every way a practical and comprehensive work, and will add to the well-earned reputation of its able, earnest and

indefatigable author, and is quite in keeping with his classical contributions in other fields of surgical pathology and progress. The printing—clear, large type, paper and binding are first-class in every respect, and the illustrations are to be especially commended.

ATLAS AND ESSENTIALS OF BACTERIOLOGY. By Prof. K. B. LEHMANN, Wurzburg, and Dr. RUDOLF NEUMANN. Sixty-three Chromo-Lithographic Plates, comprising 558 Separate Figures, with Explanatory Text Facing Plates, and 128 page Treatise. Illustrated. Muslin, $3.00, net. New York: WILLIAM WOOD AND COMPANY.

In the original prospectus of the excellent series of Hand Atlases, issued by Messrs. Wm. Wood & Co., this valuable contribution was not included, and it comes as a most agreeable surprise, being as it is, fully in keeping with its five preceding volumes, with which it is uniform in size and style. The chromo-lithographic plates are marvelous in beauty, and their scientific faithfulness to nature is vouched for by the eminent medical specialists under whose direct supervision they have been executed. The descriptive matter of each plate is printed on the page facing it; and the one hundred and twenty-eight pages following, giving a condensed yet practical and thorough treatise on bacteriology, will make it indispensable to bacteriolcgists, to whom it will prove a reliable hand-book as well as atlas.

LECTURES ON THE MALARIAL FEVERS. By WILLIAM SIDNEY THAYER, M.D., Associate Professor of Medicine in the Johns Hopkins University, 8 vo. cloth; pp. 326. D. APPLETON & Co., Publishers, New York, 1897.

That Dr. Thayer is quite in keeping with the array of talent that is clustering around this young but already famous university is quite manifest in the excellent treatise he has just submitted to the profession. The series of nine lectures give a most thorough, correct, lucid and up-to-date statement of the various forms of malaria. His careful and painstaking labor, together with his practical elucidation of the entire subject of malaria can but command the universal admiration of his friends, to whom will be added many others by this venture into the field of medical literature. The three beautiful plates illustrating the germ of malaria are perfect specimens of art, and will add no little to the value of the work.

SOUTHERN PRAC

AN INDEPENDENT MONTHLY JOURN

VOTED TO MEDICINE AND

SUBSCRIPTION PRICE, ONE DOLLAR PE

IG J. ROBERTS, M.D., - - J

X. NASHVILLE, DECEMBER, 1

Original Communicat

SURGERY OF THE BILE TR

BY PROF. J. B. MURPHY, M.D.
Chicago, Ill.

SICAL LECTURE DELIVERED AT THE N
HOSPITAL, OCTOBER 9TH, 189

MURPHY. *Gentlemen:* It is an exce
d to address you in the city of Nashv
o comes to the South is overwhelmed
e and chivalry of its people. I have
the flattering words of my colleague,
. However, I can only say that I am
liments.
Haggard has very kindly produced th
a lesion, the sequence of an operation

ted by J. F. Galloway & Co., Stenographer

The Doctor will kindly read a history of the case first, and we will use that as a model to discuss the surgery of the gall tracts.

Dr Haggard here read the history of a case of

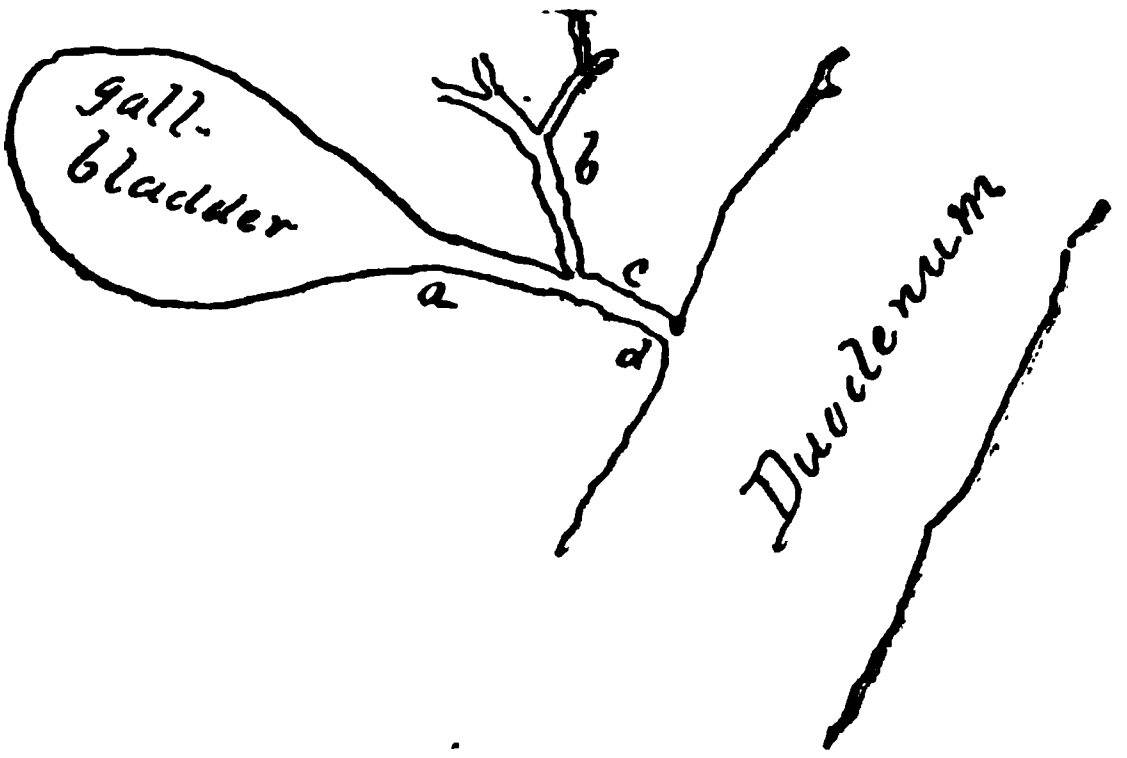
Gall-Stones, Cholecystotomy, and Existing Biliary Fistula.

"Mrs. B., aged 26 years, married fifteen years, four children, youngest four years old. About three and one-half years ago she was seized with a colicky pain in the epigastric and right hypochondriac region, which was reflected to the right shoulder-blade. The abdomen was swollen and tender, succeeded by a tender enlargement in the right lumbar region as large as a closed ffst that increased and diminished in size as the recurrent colicky attacks came and went. For six months the patient was only able to walk by stooping over. She wore turpentine and vinegar stupes constantly for a year. Two years ago had an attack of jaundice lasting nearly three weeks. She was confined to bed part of this time by a constant colic. She has had numerous attacks of colic, without jaundice, since.

May 11th, 1897 I made an abdominal section over the most prominent part of the tumor. The peritoneum was opened to the inner side of the tumor. It had been variously diagnosed as appendicitis, sarcoma of kidney, and suppurative disease of kidney. The gall-bladder was found elongated and adherent, was opened and a number of gall-stones (12) removed. The stones were imbedded. The gall-bladder was sutured to the edges of the incision and packed with gauze. No attack of colic since. Fistula has been open five months. The stools are clay-colored and pasty. She has lost no weight."

Dr. Murphy: This patient, gentlemen, had colic three years ago. The colic disappeared; she had a number of recurrences, until about two years ago when she had a more severe colic than she had had before. The last attack was followed by jaundice. The colic continued for three weeks with remissions; the jaundice was present during that attack. The jaundice disappeared; there was no further colic for a number of months; then she had a recurrence of the pain, with no recurrence of the jaundice, as I understand the history. What does that mean? What significance has that history? Let us analyze: The

patient complained of pain. Where? In the right side. The colic was followed by nausea and vomiting, still the patient had colics for a year before she became jaundiced. How could the patient be troubled for a year with gall-stones without jaundice? This leads to a very important point, and to one that is most difficult for the medical profession to appreciate; that is, that colics are very much more common without jaundice than with jaundice. In nearly eighty per cent. of the gall-stone cases that I have operated on jaundice has not been a symptom at any stage of the disease. Not only are the attacks of colic more common without icterus, but in the greater percentage of cases we never have jaundice; this is elucidated by a consideration of the origin of the gall-stones themselves.



a. Neck of the gll-bladder or beginning of cystic duct; *b*. Hepatic duct; *c*. Common duct; *d*. Ampulla of Vater, entrance of common duct into the intestine.

We have gall-stones formed where? (Here Dr. Murphy illustrated his remarks by sketches on the blackboard.) Gall-stones are formed, I believe, almost exclusively in the gall-bladder; we may make the statement that gall-stones are formed in the gall-bladder. Occasionally we find gall-stones in the liver, but that is exceptional; more frequently we find gall-stones in the hepatic duct; when there the gall-stones have passed down through the cystic duct from the gall-bladder, and have been forced by the contraction of the gall-bladder into the hepatic duct. We will take it for granted, for this discussion, that the

great majority of gall-stones are formed within the gall-bladder. They are composed principally of cholesterin, a product of cellular metamorphosis from the desquamated epithelium of the mucosa of the gall-bladder.

Where do gall-stones produce the primary symptoms? At the seat of their formation in the gall-bladder. Here they set up a certain amount of irritation and catarrhal exudation. For an indefinite time they are inert and mould their forms to each other in a smooth mass. After they are disturbed they cause additional secretion and are forced by it into the duct.

The current of the bile is first down the hepatic duct, and then a small quantity of it turns back up the cystic duct into the gall-bladder. Only a few drops of bile in the neck of the gall-bladder change daily; the bile in the remaining portion of the gall-bladder does not change; it is practically stationary. When the gall-stones are situated in the gall-bladder why should they pass? By the irritation of the gall-stones we have produced a catarrhal inflammation and increased exudation; the accumulation of these exudates distend the gall-bladder and produce an exit current, finally forcing the gall-stones into the cystic duct. As the gall-stone is forced into this duct, it produces colic. Is that colic accompanied by jaundice? That depends upon how far it is propelled. When it is propelled through the cystic duct to the junction of the cystic and hepatic ducts, and on into the common duct, so that it produces an obstruction of the current of the bile from the liver, then it causes jaundice, and not until then.

What is the clinical course with cystic duct obstruction? If gall-stones of considerable size are impacted in the cystic duct, say three-eighths of an inch in diameter, they dilate the duct, and the gall-bladder assumes a balloon shape. As it enlarges at the position where the stone is impacted in the neck the gall-stone drops out of the neck of the cystic duct and falls back into the gall-bladder, and the attack subsides. That is the course in a typical attack where the gall-stone is impacted in the cystic duct or the neck of the gall-bladder, and does not pass beyond that. These attacks are never accompanied by jaundice. This is the variety from which this patient suffered the first years of her illness. Her symptoms during an attack were pain in the epi-

gastrium, nausea, vomiting, sensitiveness over the gall-bladder, particularly with pressure on deep inspiration; temperature 99½ to 100°; pulse less frequent than normal. After severe vomiting the pain usually ceased, but the tenderness remained for a day or two.

After repeated attacks of this character we finally have a thickening of the mucosa and eventually an infection—an auto-infection—an infection through the circulation, or through the bile, but, I believe, more frequently through the circulation; with this infection there is a rapid increase in the secretion in the gall-bladder.

How can we make the diagnosis of gall-stones in the gall-bladder? When the gall-stones are in the gall-bladder, after infection of a severe degree, the patient is attacked with a mild colic; this colic is usually of short duration—two or three hours. It is preceded by a chill and accompanied by local tenderness. If the infection be of a mild degree the temperature will not exceed 99.5°, while in severe cases with gangrene I have observed it 105° The tongue is coated, the abdomen tympanitic, and all the symptoms of a severe infection are present. There is a tumor often as large as a child's head; this is very sensitive and pain is greatly increased on inspiration. These cases are typical and to the accustomed eye readily recognizod. After a little experience a diagnosis of gall-stone obstruction in the cystic duct can be recognized just as readily as in the common duct.

The one which I have described is the most common type, and when the stone passes down into the common duct we have associated with the above symptoms jaundice. The duct dilates, and the gall-stone passes along until it comes to the ampulla of Vater, where it is frequently held for a long time. I will indicate it at this position, at the entrance of the duct into the intestine. When the gall-stone is *lodged* in this position you will have no colic; but if this gall-stone is changing its position, that is, advancing in the duct, colic will be present. Colic is not the manifestation of distension and retentiou of fluids behind the calculus, but a manifestation of excessive dilatation producing the onward movement of a calculus, or a foreign body, within a duct or tract; is must be moving; it must be changing position to produce colic. This accounts for the fact that this patient

had had the symptom of jaundice for three weeks, while the colic was present only a very small fraction of the time, still the patient had colic every time the calculus changed its position in the common duct. In investigating cases of protracted jaundice great care should be exercised in determining the presence or absence of colic as an initial symptom, as it always occurs primarily when the obstruction is due to gall-stones. As soon as the gall-stone becomes arrested in a position in the duct, a portion of the bile passes by, but sufficient is retained to produce the icterus. We have another symptom occasionally in this class of cases, and it is a very unpleasant and unfavorable one, viz.: chills and fever. When the gall-stone becomes arrested in the lower part of the bile channel, in the neighborhood of the intestine, there is produced at the position where it is arrested an ulceration of the mucosa of this portion of the bile tract. The tract is particularly rich in lymphatics, and as soon as ulceration ensues there is a rapid absorption with manifestations of infection. Then the patient has his typical chill and fever, every two, three, seven, ten or twenty days; he has this "malignant type of malaria," or "malignant jaundice," as clinicians formerly called it. All the time he is having these chills he is free from colic. I recently had a case of this class from Kansas which terminated fatally. He had been jaundiced for eighteen months and had had chills and fever for five months. He had a chill every two days while in Chicago before the operation; after the chill he would have a temperature of 105° to 105.5°, and his pulse-would reach 140; he had all the septic manifestations of ulcer of the common bile duct, even to secondary abscesses and purpura. I performed a cholecystotomy for drainage, removing the stones from the gall-bladder. There was a continuation of the same symptoms, *i. e.*, pyemic, that originated in the duct from the impacted gall-stones which took place a year and a half preceding the time I saw him. During the jaundice the patient did not have a single colic. The gall-stone was located in the same position and had produced an ulceration, but no colic. He died five days after operation. Post mortem was not permitted.

In this patient here, after three weeks of jaundice two years ago, the gall-stone was passed. Shortly after she again began

to have gastric disturbance and "gastralgia," a diagnosis usually made in gall-bladder colic not accompanied by jaundice; with cholecystitis most all of the patients suffer from gastric disturbances, and occasionally vomit. These symptoms, with the absence of jaundice lead to a diagnosis of gastralgia or biliousness, and the diagnosis is confirmed by the patient feeling better after vomiting. What takes place with this vomiting? I will illustrate it by a case I treated in my earlier experience—a close relative of mine. I had an excellent opportunity to watch and study it every day. She would have a cramping pain in the right hypochondriac region; it continued for an hour and a half. The temperature would reach 99.5° or 100.5°; she would then have vomiting, after which the pain and temperature would subside, but the soreness would remain. If I examined the patient before vomiting I could feel distinctly below the margin of the rib an excessively tender and tense tumor, and as soon as the vomiting passed away the tumor disappeared and the tenderness diminished, showing that the tension had passed off, and that the contents of the gall-bladder had dilated it sufficiently to allow the secretion to pass by the stone in the manner previously described. This patient had a number of large calculi, and they kept dilating the cystic duct until these calculi were almost down to the junction of the cystic with the hepatic duct, as was found in operation. The calculi numbered five and averaged seven-eighths of an inch in diameter.

We can see that we have gall-stones producing symptoms in three different positions: First, we have them producing symptoms when they remain in the gall-bladder and when they become impacted in its neck. Second, producing symptoms more severe, giving colic of a typical character, and not accompanied by jaundice when the gall-stone remains in the cystic duct. Third, we have them producing symptoms, as far as the gall-tract is concerned, when they are always associated with jaundice. Many times they will ulcerate through the walls of the gall-bladder, cystic or common duct into the intestine or stomach. Where very large calculi are passed this is the method of entrance into the bowel, and often these cases are not associated with icterus.

Now what is jaundice? What does jaundice signify in con-

nection with diseases of the liver; *i. e.*, in association with foreign bodies in the gall-tracts? Colic followed by jaundice is always produced by a foreign body. A typical colic accompanied by jaundice means what? It does not mean catarrh of the bile duct; it does not mean a compression of the common duct from without, as pressure from a carcinoma of the head of the pancreas; it does not mean a closure of the bile duct from a cicatricial contraction; it means, each and every time, a foreign body—either a polypus or a gall-stone, and we might say a gall-stone, because polypus is so extremely rare. As long as the gall-stone is moving there is no elevation of the temperature to speak of. It is when it becomes arrested, or when it has passed and is followed by that peculiar and malignant type of ascending infection of the bile channels, acute infection, cholangitis, or "acute infective jaundice."

With this the patient dies in four or five days from the acute infection of the bile tracts. Gall-stones located in the hepatic duct or its bifurcations are usually not accompanied by colic. It is formed usually in the small ramifications of the hepatic duct, often producing an intra-hepatic cyst, and is rarely associated with icterus. Can we make a diagnosis of these various conditions? Yes. The diagnosis of gall-stones is just as easily and, I might say, just as postively made, if we see the patient in the attack, as the diagnosis of a simple case of appendicitis; which, I think, is one of the easiest in abdominal surgery.

Is it possible to recognize the gall-bladder through the abdominal wall in the majority of cases? By its size, no. I say no, because in about eighty per cent of the cases there is a contraction of the gall-bladder, and in the other twenty per cent. it is the normal size or enlarged. What are the conditions that produce the enlargement, and what the contraction? As the result of the infection that accompanies the gall-stone in the gall-bladder there is a peri-cholecystitis produced and adhesion of intestines and omentum takes place and forms quite a tumor, though the gall-bladder may be contracted. When a large calculus is impacted in the neck or cystic duct there is retention and gradual distention of the gall-bladder so as to hold a pint or more of fluid. In mild infection there is infiltration and cicatricial formation in the mucosa, the gall-bladder wall becomes thickened,

as I picture it here, this newly-formed connective tissue contracts so that we find the gall-bladder in eighty per cent. of these cases diminished in size and frequently hugging down on the calculi. I have seen the gall-bladder in one case as small as my little finger; this patient had had the signs of inflammation of the gall-bladder and the history of four years' illness with cholelithiasis in all its various forms. Now that it is a feature of the gall-bladder to be contracted, how can it be recognized? We cannot locate it when in its normal condition, as it is not sensitive; it is that sensitive spot which may be felt when the hand is well under the costal arch and the patient takes a full breath and forces it down, that we can estimate exactly its location. Furthermore, if we feel the induration in the neighborhood of the gall-bladder, are we justified in assuming that this induration is an enlarged gall-bladder? No. In a great majority of cases, in acute attacks, there is a matting together of intestines, colon, duodenum and omentum, which make up this mass around the gall-bladder in their efforts to protect the peritoneum. It may extend down to the umbilicus. This is no criterion, whatever, as to the size of the gall-bladder in that individual case.

I recall a patient whom I saw in the first attack she had ever had of gall-stone colic. There was complete destruction of the gall-bladder within 48 hours from the onset of symptoms. It was gangrenous and had separated partially from the cystic duct. It was removed as a grangenous mass. The intestines had matted around it and prevented a general peritonitis. The absence of jaundice in this case is one of the negative general signs of the condition. It is one of great value, as it leads to the diagnosis. If the patient has a very high temperature, with local tenderness, and jaundice is absent, in the male and particularly in the female, it is caused by gangrene and a severe infection of the gall-bladder, and must have immediate relief. If the temperature be low the demand for immediate relief does not exist, as it is then merely a catarrhal condition or a mild infection of the gall-bladder.

What will be the treatment of a case of choleithiasis? That depends upon the symptoms. A patient may have an attack of gall-stone colic to-day, and may not have another for one, two,

three, or even ten years. What does that signify? If the patient has had a jaundice with the attack she has passed a gall-stone. If the patient has had an attack without the jaundice she has not passed the gall-stone, and it is useless to be expecting to find it in the feces. Furthermore, if the patient has passed one gall-stone, that is no indication that she has passed all the gall-stones that are in the gall-bladder: the patient will likely have a subsequent attack. In the treatment of these cases we must consider the ultimate result: The longer the gall-stones remain in the gall-bladder the greater the pathologic changes, and the greater the danger to the patient in removing them. If gall-stones are removed in the early stage of the attack, before the patient has become jaundiced, I believe that the mortality will be as low as 1 per cent. The mortality with and without jaundice in cholecystostomy by means of the button is one death in 42 cases, or 2.3 per cent. If we can perform an operation with such a small mortality that will relieve the suffering, not only from colic, but the continued and repeated gastric attacks, absorption of the infected material, irritation of the gall-stones within the gall-bladder, it is our duty to act promptly before the more grave pathologic changes ensue. What would be the course, supposing that these gall-stones remained in the gall-bladder? Eventually they would tend to the production of other pathologic conditions. The great majority of infections of the bile and liver are sequences of irritation by the gall-stones, as are also the malignant diseases. I was stimulated to the work in this direction by two of my particular friends being attacked with carcinoma of the liver and gall-bladder after a history of cholelithiasis of six and eight years respectively.

The history of carcinoma of the liver and bile channels shows that the great majority of the cases have gall-stones at the time of death, and the dfferent pathologic changes indicate that they had been there for a long time. Therefore, we must not be satisfied when we have made a diagnosis that gall-stones are present in the gall-bladder to have that patient pass from our observation because she is relieved of the symptom of colic; we must persist until they are removed, as eventually they may produce a fatal condition.

It is quoted that in post-mortems we find gall-stones in ten per cent. of the adult cadavers, but they were not the cause of the death. That is true. These cases do not concern the surgeon, as they produced no special irritation, they did no special harm; but as soon as gall-stones begin to produce disturbances—as soon as we have catarrhal inflammation within the gall-bladder—it requires but very little deviation from the normal condition to produce a repetition. When the patient is jaundiced is not a desirable time for operating; if we can tide our patient over the attack of jaundice, if we can wait until the first calculus has passed from the common duct into the intestine, if we can wait until such time as the chills and fever have abated, then is the most favorable time for operation.

The medical treatment has been discussed so much recently that I will not mention it here, other than to say that all treatment with the object of dissolving the gall-stones is useless. Surgically what can we do? We have the gall-stones situated in three positions, as mentioned. The first indication is to remove the gall-stones, where this can be done without necessarily jeopardizing the life of the patient. But there are certain positions and conditions in which that can not be accomplished without jeopardizing her life, as when we have the patient suffering with severe jaundice and pyrexia and the calculus is situated in the common duct. In those cases we have to do the least possible operating. These patients withstand the operation nicely; they are cheerful the day following the operation, but the fourth or fifth day they quietly slip away and die without any apparent cause. The post-mortem shows no additional lesions. The patients that are severely jaundiced are not in a condition to stand a prolonged operation. Indeed, in cases where the jaundice has existed for a considerable length of time, and the patients have suffered with pyrexia, I make it a rule not even to do a button operation, because it is too much of an operation for a patient in that condition. I am satisfied with a simple cholecystotomy; that relieves the patient of the jaundice. This can best be accomplished by making an incision and lifting the gall-bladder up into the opening, packing around it to protect the peritoneal cavity, placing a few retention sutures to hold it to the abdominal wall and opening the gall-bladder at once. When this jaundice

has disappeared then we are at liberty to perform whatever operation is desired for the permanent cure of the patient.

If the calculi are removed from the gall-bladder at the time it is opened and the bile does not escape, we may know there is a stone impacted in the cystic duct, which should be immediately removed; and if jaundice be present there is one not only in the cystic but also in the common duct. The rule is, when we have a gall-stone impacted in the common duct the cystic duct is free; if not, it must be immediately freed that bile may commence to pass out from the liver and relieve the patient of her greatest danger—cholæmia.

If the gall stones remain in the common duct and the patient continues to have acholic stools after the cholecystostomy and the jaundice has disappeared, we must either remove the gall-stone from the common duct or we must make another inlet from the gall-bladder into the intestines. The removal of the stone from the common duct has as a primary operation a mortality of 40 per cent. This, however, I believe will be greatly reduced by following the plan of Dr. W. J. Mayo—omitting the suture of the duct and establishing external drainage for the bile. The operation will be facilitated by the S-shaped incision of Dr. A. Bevan, which I have adopted recently; that is, by first relieving the patient of the cholæmia, and removing the gall-stone from the common duct in a second operation, then there will be a still greater reduction in mortality. I have not lost a patient where I followed this procedure. If we find, however, as in many of these cases, when the abdomen is opened, that the tissues are all matted, and it is next to impossible to locate the gall-bladder, we may facilitate matters by locating the pylorus and following down the duodenum to the gall-bladder. The adhesions may be separated so we can perform a cholecystenterostomy with the button and conduct the bile into the intestines permanently through this canal. I have given as indications for this operation contracted bladder and permanent occlusion of the common duct, and have acted in accordance with these indications; but for the last few months I am performing cholecystenterostomy much more frequently, and after an experience in some two hundred gall-bladder operations of all kinds and their sequences, I am of the opinion that that operation gives the most satisfac-

tory results. Cholecystectomy is indicated in malignant disease, and in extremely contracted and cicatricial gall-bladders.

Now, as to this particular case of billiary fistula following cholecystostomy. Here is a case in which the fistula is discharging not only bile but pus. We had here at the time of this primary operation a severe cholecystitis with pericystitis, the gall-bladder adherent to the abdominal wall, and in addition to that pyrexia. The gall-bladder was opened without opening the free peritoneal cavity. What will be the termination? There are two causes that may be keeping the fistula open; one is, the gall-bladder may be joined to the skin; if the skin is united to the mucosa the fistula will contract, but it will remain open almost indefinitely, that is, with a patulous duct. If, on the other hand, the mucosa of the gall-bladder is deep in the cicatrical tissue, and the distance from the skin to the mucosa is considerable, it will close whether we desire it or not, provided the the duct is patulous; if the duct be occluded we can not cause it to close.

The probabilities in this case, from the history, are as follows: The patient, at the time she was operated on, had no jaundice, therefore, there was no stone in the common duct at that time, and there is none there now. The cystic duct was free at the time of operation, as immediateiy after cholecystostomy bile flowed freely from the external opening. Furthermore, there was a large quantity of pus in the gall-bladder and the patient had pyrexia, which she would not have had without an acute infection of the mucosa. The position of the fistula in this case is extremely low down, due to the fact that there was a linguiform enlargement of the right lobe of the liver. It was carried down by the gall-bladder, to which it was adherent. This enlargement is present in 20 per cent, of the cases of enlarged gall-bladder cholelithiasis. As soon as the gall-bladder was relieved of the fluid it contracted, and now it may be traced with the probe as a long sinus down to the helix of the liver. This contraction is due to the absence of tension within and the contraction of the new-formed connective tissue in the wall. When the infection is cured, and the tension restored, the gall-bladder returns to its normal size and texture within a few months, as post-mortems and my experiments have demonstrated. We will allow this case to

drain until it ceases to suppurate; dilate the opening a little so that the pus can readily escape, and after a time remove the packing, and as there is no obstruction to the cystic duct the fistula will close. As the patient did not have jaundice at the time of the operation it will close in spite of anything we can do to keep it open, except a drain; that is the tendency in all biliary fistulæ. If, however, the skin be adherent to the mucosa a plastic operation must be performed, freeing the gall-bladder wall and closing it with catgut, approximating the skin and abdominal wall with silkworm gut.

Now, gentlemen, this subject is such an extensive one that I fear I have exhausted your patience. I thank you for kind attention.

Selections.

THE NEW TUBERCULIN.—In the *Deutsche medicinische Wochenschrift* for April 1, 1897, Koch publishes the method of producing a new preparation of tuberculin which he designates tuberculin R. The old tuberculin consisted of a glycerin extract of tubercle bacilli, and the reaction produced by the subcutaneous injection of this preparation has always been followed, according to Koch, by an unmistakable improvement in the tuberculous process, and this improvement continued until ultimately, in many cases, a period of perfect immunization against tuberculin was secured. This immunization, however, had no effect upon the tubercle bacilli themselves; it was a pure toxic immunity, and not a bacterial immunity. Unfortunately, the reaction against tuberculin was often lost before there was a complete cure of the disease and a relapse set in, which had again to be treated with tuberculin reactions so soon as the capability of reaction was established. Despite the shortcomings of this tuberculin, Koch still believes that it would be the best agent for the treatment of tuberculosis, were it not that he had recently succeeded in securing from cultures of tubercle bacilli a prepa-

ration which immunizes the body against the tubercle bacilli themselves.

From numerous experimentations Koch was led to understand that under no circumstances could tubercle bacilli be absorbed in the undestroyed state, but that this desired absorption might be obtained by treating them mechanically. Well-dried cultures were rubbed thoroughly in an agate mortar until there was a diminution in the number of colorable tubercle bacilli, and at least only a few bacilli remained, and these were removed by placing the substance in distilled water and centrifuging it; the fluid could then be separated into a perfectly clear transparent layer which contained no tubercle bacilli, and a solid, muddy sediment. This sediment was again dried, pulverized, and centrifuged as before; and again there was a clear upper layer and the solid deposit. This process was repeated until the whole mass of tubercle-bacillus culture was converted into a series of perfectly clear liquids.

Experiments made upon animals, and later upon man, proved that the preparation thus obtained was entirely absorbable, and never produced abscesses if it had been thoroughly centrifuged and contained no colorable bacilli. The upper layer which resulted from the first centrifuging was designated tuberculin O., while the rest, obtained after the first centrifuging, received the name tuberculin R., or T. R.

The conduct of tuberculin R. in the presence of glycerin shows that it contains essentially the constituents of tubercle bacilli, which are insoluble in glycerin, and which in a glycerin extract remain behind. The tuberculin O. approaches very nearly in its properties to the common tuberculin. The tuberculin R., on the contrary, has decided immunizing properties. It produces reactions in the tuberculous patient when too large a dose is used, but the entire effect is entirely independent of these reactions. While reactions must be obtained in order to accomplish curative effects with common tuberculin, Koch endeavors, in the use of tuberculin R., to avoid reaction as much as possible, and to make the patient insusceptible by gradual increase of the dose, as rapidly as it can be done, it is true, but at the same time to avoid as far as possible the larger doses—that is, an endeavor is made to immunize the patient against tuberculin

R. and the tubercle bacilli. An individual who is immunized against tuberculin R., no longer reacts to large doses of the common tuberculin—in other words, he is immunized against all the constituents of the tubercle bacilli.

In concluding the paper Koch reports that he has obtained excellent results from the use of the new preparation in tuberculous animals. In phthisical patients he states that the well-known violent reaction of tuberculin, with the temporary infiltration in the diseased lung tissue, was absent. A slight increase in the rales, which speedily disappeared, was, as a rule, the only local symptom attending the use of the tuberculin R. preparation. The sputum diminished after a few injections, and there was a corresponding diminution in the number of tubercle bacilli, which soon disappeared altogether. The rales likewise disappeared, and the region of dullness diminished. The patients began to gain in weight from the beginning, and made essential gains by the end of the treatment.

Since the publication of Koch's paper other investigators have experimented with the new tuberculin, but the results do not justify the hope that an important advance has been made in the treatment of tuberculous affections.

Schultze, of Bonn, reports nine cases of phthisis treated with this new remedy. In several instances the same unpleasant results which followed the injection of the old tuberculin were noted. In one patient laryngeal tuberculosis developed while under the treatment, and in another intestinal symptoms appeared. In three patients there was some improvemennt, and in four the symptoms remained the same. In Fraenkel's clinic fifteen patients were subjected to the treatment. In a number of instances severe chills, followed by high fever, resulted from the injection. Of the fifteen patients who completed the course of treatment, seven gained in weight, two remained unchanged, and five lost in weight. Herzfeld, of Berlin, reports seven cases of laryngeal tuberculosis treated with tuberculin R. In one case there was some improvement, but the opinion is expressed that in the other cases better results would have been obtained by the ordinary local treatment. Leick reports fifteen cases of pulmonary tuberculosis in which the new remedy was employed. A marked improvement was noted in two cases. Rumpf reports

some favorable and some unfavorable results with the new tuberculin. He finds that it not infrequently causes painful inflammatory infiltration of the skin and high fever, and believes that considerable caution should be exercised in employing it in the treatment of primary localized tuberculous process of the lungs. While sufficient time has not elapsed to determine the exact value of tuberculin R., the results obtained from its use up to the present time offer but scant encouragement, and, moreover, indicate that the new preparation is not free from the objections which have been urged against the old tuberculin.—*Leading Article in Univ. Med. Mag. for November*, 1897.

ANTITOXIN.—Henry R. Slack, Ph.M., M.D., of La Grange, Ga., expresses (*Atlanta Medical and Surgical Journal*, November, 1897) a high opinion of antitoxin as a preventive and curative agent in the treatment of diphtheria. His own experience in private practice bears out fully the favorable reports made to the American Pediatric Society by its special committee, and the clinical cases recited by him testify to the prompt and powerful action exerted by antitoxin on both the local and constitutional symptoms of the disease. Dr. Slack concludes that the anti-diphtheritic serum could be administered freely and promptly, as the loss of twenty-four hours may mean the sacrifice of a life. He recommends doses of from 1000 to 2000 units, according to the severity of the case, to be repeated in twenty-four hours if improvement is not manifest. A third dose may be given in perfect safety. Dr. Slack urges the use of the most concentrated strength of an absolutely reliable preparation. In his own cases he used diphtheria antitoxin of both foreign and domestic manufacture. He prefers that prepared by Parke, Davis & Co. for two reasons: 1. It is put up in hermetically sealed, large-necked glass bulbs. 2. It can be obtained fresher, thus increasing its reliability.

Dr. Slack's article bears out the many tributes that have been paid to the Anti-Diphtheritic Serum of Parke, Davis & Co., on the score of its entire freedom from fatalities, casualities or complications of any kind; its great concentration, and the promptness with which its curative powers are manifested.

HOT WEATHER AND CRIME.—Officers of the Weather Bureau have undertaken an investigation of the relation of the weather to crime, and it is possible that in the near future they may be able to issue warning notices of the approach of crime waves, says the *Sanitarian*, September, 1897.

The investigation was originated by Col. Willis L. Moore, Chief of the Bureau, who believes that there is a close connection between atmospheric conditions and the physical and moral welfare of the people. He has assigned to the work Dr. Phillips, who is a competent physician as well as an expert metereologist.

Chief Moore says: "Taking in the whole country during January, February and March, there were in even numbers 1,200 suicides reported in the United States, while in July, August and September there were 1,600.

"In the same period there were 1,700 murders in the cold term, as compared with 2,500 in the three hot months.

"There were fifty persons hanged or lynched in three cold months, and 115 hanged or lynched in the three hot months."—*Med. Review of Reviews.*

A CLINICAL REPORT OF A CASE OF SCURVY IN AN INFANT.—Dr. D. J. Milton Miller reported the following interesting case of infantile scurvy before the Philadelphia Medical Society. The child was a male, colored, ten months old, living among the most unhygienic surroundings. The first week of its life it was fed on condensed milk and boiled cow's milk; then, until presented for treatment, a period of six months, its exclusive diet was oatmeal gruel. The child was fretful and tender to touch, with swollen and bleeding gums for two weeks before it was presented at the dispensary for treatment. Handling caused screaming and extreme pain. There were no spots of echymoses. The symptoms yielded promptly to orange juice, fresh beef juice and cow's milk.—*North American Practitioner.*

THE VAGINAL DOUCHE IN PARTURITION.—The late William T. Lusk, M.D., LL.D., of New York, in *Modern Medicine*,

strongly opposed the vaginal douche before and after labor. While the vaginal canal abounds in micro-organisms, he believes that they only intensify the acid reaction of the vaginal secretions, thus rendering them unfavorable to the multiplication of the streptococcus, which is the germ producing puerperal septicemia. The normal vaginal secretions furnish a soil hostile to all forms of cell growth. The mucous plug as found in the cervical canal of a pregnant woman protects her from the invasion of micro-organisms, this being true, in natural labor the protection of uterine cavity is complete. Nature seems to guard the woman against infection during the entire act of parturition, 1st, with the rupture of the membranes, the downward flow is produced by the escape of the amniotic fluid; 2nd, the descent of the child cleanses the vaginal canal, and the associated leucocytosis and increase of vaginal secretion are sufficient to destroy the action of the germs; 3rd, the passage of the placenta completes the toilet of the vagina. The fact that nature provides this excellent means of self-defense clearly shows that the disturbing method of disinfection employed before and after labor, under the plea of prophylaxis are not commendable. The antiseptic douche dissolves the mucous, sets free the imprisoned germs, weakens the resistance of tissue and contributes to the extension of the sources of infection. A careful examination of hospital statistics shows that, with the abolition of the routine practice of douching, the morbidity is diminished, and the mortality statistics are slightly more favorable.—*Med. and Surg. Reporter.*

RHUS POISONING.—Dr. Schamberg, in descanting recently upon the comparative merits of the remedies used in the treatment of ivy poisoning (*dermatitis venenata*), remarked that none was a specific, but that all were designed to relieve the itching and burning, and subdue the inflammation. Of almost equal value are (1) saturated solution of boric acid; (2) fluid extract of Grindelia robusta, 1 fluidram to 4 fluidounces of water; (3) aqueous solution of sodium hyposulphite, 1 dram to the ounce; (4) Labarraque's solution, 35 per cent. to 50 per cent.; Black wash diluted one half with lime water; (6) bromin, 10-15 minims to 1 ounce of olive oil.—*Phil. Polyclinic.*

CHLOROFORM VERSUS ETHER.—Gay says that the accumulated testimony of the past fifty years tends to prove conclusively that ether kills slowly, chloroform quickly; that ether kills by asphyxia, chloroform by cardiac paralysis; that ether gives plenty of warning, chloroform often none whatever; that ether is safer in healthy and strong people than in the weak and prostrated, but that chloroform is nearly as fatal in the vigorous as in the debilitated. Ether does not demand any especial skill in its administration; chloroform does. Proper treatment easily and effectually overcomes the unfavorable symptoms from ether; treatment often does no good whatever in accidents from chloroform. In short, ether is the safest general anesthetic known; chloroform is not.—*Boston Med. and Surg. Jour.*

PERMANGANATE OF POTASSIUM IN OPIUM POISONING.—Surgeon-Major J. D. Reckitt reports, in the *British Medical Journal* of October 9; 1897, a case of a man, twenty-five years old, who had drank two ounces of laudanum. Permanganate of potassium, in five-grain doses repeated several times, was administered, and the man made a good recovery. He was seen too late to permit of removal of the poison from the stomach, so that the entire amount taken was absorbed.—*Med. Record.*

HEADACHES, if due to pelvic disturbances in the female, are usually located at the top of the head and are accompanied by soreness of the scalp; if due to digestive disturbances, they are occipital or frontal; if to disease of the pharynx, they involve the entire vault, as though the pharynx were expanded and extended upward; if due to migraine, they are usually one-sided, local, and accompanied by soreness at the supra-orbital foramen; if to eye strain, generally superciliary or frontal, sometimes occipital; if to disease of the nares, between the eyes and extending backward.—*Deroum, in Med. Record.*

TREATMENT OF CORYZA WITH GELSEMIUM.—This is one of the best remedies for the relief of "cold in the head;" drop

doses of the fluid extract, given hourly, will usually secure the best possible results. Given with quinine, gelsemium prevents ringing in the ears. It is almost a specific in ovarian neuralgia. The physiological effects are ptosis and dimness of vision, which however, are readily dissipated by means of amyl nitrite or small doses of any good spirituous liquor.—*Medical Age.*

ECONOMY IN HYPODERMIC NEEDLES.—Sir: Thousands of hypodermic-syringe needles are thrown away each year as useless by members of the profession, which could with a slight amount of trouble be restored to their original state. The channel of the needle becomes occluded, owing to the deposition of material derived from the injected fluid. This precipitate is readily dissolved and removed by boiling the needles for a period of ten minutes in a solution of sodium carbonate, which not only cleanses the needle internally, but restores the brightness of the external surface as well.—*Adolph G. Brown in New York Medical Record.*

FOR ANOINTING THE FINGERS.—Soft soap is preferable to vaseline for anointing the fingers before making vaginal examination and for lubricating the vaginal speculum. It is prepared by dissolving castile-soap shavings in warm water. If the vessel containing the soft soap be surrounded by hot water for a few minutes before it is used, the contents will be of thin consistence, resembling olive oil. The advantages of using this emollient are that it helps to clean the vaginal mucous membrane and readily washes off when it is desired to medicate.—*Talley in the Record.*

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Editorial.

VOLUME XIX.

In concluding our labors with the volume of THE SOUTHERN PRACTITIONER for the current year, it is with a feeling of satisfaction and gratification enjoyable in the highest degree. For nineteen consecutive years, with a sensation of pardonable pride we have watched the career of our journalistic venture steadily advancing and becoming more and more satisfactory day by day; and now with the last number for 1897, in looking back over the past with careful scrutiny and thorough investigation we are justified fully in saying that in no preceding year have our humble labors been attended with such gratifying success.

The great concourse of visitors to our grand Centennial brought us face to face with many who had been staunch and earnest supporters in the years gone by, some of whom we had never met and with whom our acquaintance was limited to the brief notes accompanying their annual renewals of subscription. Others were personal acquaintances of the distant or more recent past, yet their good words of encouragement, their complimentary expressions in themselves were quite enough to thoroughly encourage us in the work to which we have devoted the last and most active third of the days that have so far been allotted us. Then again, the additions to our subscription list this year have been far greater than any preceding year, and renewals have been more prompt, so that we shall ever regard the Centennial year of our State as the *red-letter* year of our journalistic life.

While we have not attempted the impossibility of having every line in accord with the wishes and desires of everyone, we have endeavored by variety, both of subjects and matter, to place something before each one at least, that would gratify his tastes, though he were ever so fastidious. It has been a labor of love, and an appreciable pleasure each month to collate, to clip, to cull, and glean such views and ideas as we considered would be most acceptable to the multitude of friends we have acquired in our editorial capacity.

We have endeavored to give the salient points of medical and surgical progress that we deemed worthy of perpetuation. Original contributious, cullings from the periodical literature of the day, reports of local, State and National medical organizations, editorial remarks on the events passing over the grandest of sciences, candid and impartial notices of the new medical books issued during the year; and last but not least, a careful attention to the advertising pages, excluding all that we believed to be unworthy the attention of our readers have been the means by which we have reached the most successful and satisfactory year in our journalistic experience.

Yes, my good friends, one and all, contributors, subscribers, patrons, readers, and my fellow associates and brothers of the editorial tripod from

whose weekly, monthly and quarterly scintillations I have derived so much benefit and pleasure, accept the kindliest thanks and the heartiest good wood will in my power to offer you, coupled with the assurance that the coming year will find no measures and no efforts on my part untried, to merit a continuance through another twelve months of the good will, assistance and support heretofore accorded the humble but earnest attempt to make this journal acceptable, readable and interesting. So then, if satisfied with my efforts in the past, send along your renewals of subscription for 1898, and get your friends to join you.

A DEPARTMENT OF PUBLIC HEALTH: ALL THINGS COME TO HIM WHO WAITS.

In the earlier volumes of this journal, and in an address* delivered before the American Medical Association in Washington, May 1884, as Chairman of the Section on State Medicine, we urgently and earnestly advocated to the best of our humble abilities the paramount importance of the creation by our National Government of a Department of Public Health with adequate powers commensurate with our needs and necessities. Since the above-mentioned date, national sanitary affairs have been in the hands of the Marine Hospital Service, a bureau of the Interior Department, the necessity of whose existence we have ever questioned, believing it to be no more essential than a barber's, a tailor's or a tinker's hospital service. The slight epidemic beginning at Brunswick, Ga., a few years ago, and the wide-spread, but mild epidemic that made its advent with the closing days of last summer—mild in its death-rate, but disastrous and destructive as effecting the commerce of the entire country, has shown the inefficiency of the present and past methods of dealing with, and the control cf epidemic visitations of non-indigenous diseases.

So much so, that throughout the broad land there has come up an almost universal demand for national quarantine. The leading journals, secular especially, with but one exception in our knowledge in the South, are lustily, are earnestly engaged in putting forth active efforts in behalf of such a measure—having recognized the fact that epidemic diseases were no respecters of the pet doctrine of State rights, any more than would be any foreign nation or power with whom me might as a nation be at variance, at last they are willing to place in the hands of the National Governmant the proper anthority to meet such invasion. Furthermore, the masses of our people have at last began to see this important matter in its proper light.

State, municipal and local sanitation, with all their great importance have their limitations, and it is only with the strong hand of the National Government, backed by its entire power and wealth that we can successfully and satisfactorily cope with these occasional visiting scourges; and

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*Journal of the American Medical Association, July 5, 1884.

it is greatly to be hoped that the members of Congress, both House and Senate in the session commencing this month, will meet this important issue in a true practical, satisfactory and business-like way by the establishment of a *Department of Public Health* whose duties shall be to collect and diffuse information upon matters affecting the public health, including statistics of sickness and mortality in the several States and Territories; the investigation by experimental and other methods of the causes and means of prevention of disease; the collection of information with regard to the prevalence of infectious, contagious and epidemic diseases both in this and other countries; also, the causative and curative influences of climate upon the same; the publication of the information thus obtained in a weekly bulletin; the preparation of rules and regulations for securing the best sanitary condition of vessels from foreign ports and *for prevention of the introduction of infectious diseases into the United States and their spread from one State into another.*

A MOVE IN THE RIGHT DIRECTION.

The Tennessee Board of Pharmacy has recently completed an analysis of pharmaceutical products purchased throughout the State. Notices are now being sent to the druggists whose preparations did not meet the requirements, calling attention to the result of the analysis and to the necessity of relieving themselves from liability by bringing their preparations up to the required standard.

Section IX. of the Pharmacy Act, touching directly the above preparations, reads as follows:

SEC. IX. No person shall add to or remove from, or cause to be added to or removed from, any drug, chemical, or medical preparation, any ingredient or material for the purpose of adulteration or substitution, or which shall deteriorate the quality, commercial value, or medicinal effect, or alter the nature or composition of such article; and no person shall knowingly or willfully sell, or offer for sale, any such adulterated, altered or substituted drug, chemical, or medicinal preparation. A drug, chemical, or medical preparation shall be deemed to be adulterated within the meaning of this Act:

First.—If when sold under or by a name recognized in the United States Pharmacopœia, or subsequent edition thereof, it differs from the standard of strength, quality, or purity laid down therein. * *

Any person violating the provisions of this section shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than twenty dollars nor more than one hundred dollars for each offense.

It shall be the duty of the Tennessee Board of Pharmacy to enforce the provisions of this section.

The officers of the State Board of Pharmacy are J. F. Voigt, of Chattanooga, President; and J. O. Burge, of Nashville, Secretary.

THE ALVARENGA PRIZE.—The College of Physicians, of Philadelphia announces that the next award of the Alvarenga Prize, amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1898, provided that an Essay deemed by the Committee of Award to be worthy of the Prize shall have been offered.

Essays intended for competition may be upon any subject in Medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1898.

Each essay must be sent without signature, but be plainly marked with a motto, and be accompanied by a sealed envelope having on its outside the motto of the paper, and within the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned, upon application, within three months after the award.

The Alvarenga Prize for 1897 has been awarded to Dr. Joseph Collins, of New York, for his Essay entitled: "Aphasia."

Philadelphia, Oct. 15, 1897. THOMAS R. NEILSON, Secretary.

[CONCLUDED FROM NOVEMBER NUMBER.]

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.*

Twenty-third Annual Meeting at Louisville, Ky., October 5, 6, 7, 8, 1897.

MEDICAL SECTION.

The first paper in this Section was by Dr. Sherwood-Dunn, of Boston, Mass., who said in part:

In all that relates to the reproduction, care, love and training of children, woman is physically and mentally the superior of man, and is in this respect the highest human type. Many authorities claim that higher education is detrimental to her first great function—motherhood. The author pointed out at length some of the fundamental errors in modern education and training of girls, showing that, although on the care of our children depends their lives and their moral welfare or ruin, yet in modern education not one word of instruction on the treatment of offspring is ever given to those who will be parents. As our educational system is defective in teaching the care of the physical, it is even more so as regards the moral. The author then considered to some extent the necessity of more careful physical training of girls. Labor, exercise and food were demonstrated as important elements in their training, and above all, that they should have a proper knowledge of physiological functions peculiar to their sex. The parents must decide themselves as to how they will teach these important points.

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*Supplied by Fassett's Medical Press Bureau.

Typhoid Fever Without Cold Baths.—By Dr. Jos. Eichberg, of Cincinnati, O.

Further Observations in the Use of Hydrogen Dioxide in the Treatment of Blepharitis Marginalis.—By Dr. S. C. Ayres, of Cincinnati, O. The disease unchecked will produce a gradual destruction and atrophy of the hair bulbs from ulceration. The mercurial ointments have long been used and are well adapted to some, but irritating to others. An alkaline wash is very valuable to soften the crusts, but in hydrogen dioxide we have a remedy which both softens and dissolves. It is neither toxic nor corrosive, acting by oxidation. After using the remedy, then with a dressing probe, or scoop, the crusts can be lifted off. The dioxide will always be a valuable adjunct to other rational measures in the treatment of this disease.

Dr. Max Thorner, of Cincinnati, O., said he had used the remedy extensively and had seen the results of its use in Dr. Ayers' hands, and almost invariably with the most satisfactory results; however, in the past few years, the remedy for some reason has fallen into disuse.

Chronically Diseased Tonsils.—By Dr. H. W. Whittaker, of Columbus, O. Seriously diseased tonsils are frequently underestimated in importance and left unattended when they are undoubtedly very prejudicial to general health. Chronically diseased tonsils may be one of either conditions—hypertrophy, hyperplasia or atrophy. The hypertrophy is found in childhood; the hyperplasia in adults. The cases which induce chronic tonsillitis may be predisposing, or exciting. Among the former, the most important is heredity, in the latter we find diphtheria, scarlet fever, and the exanthemata.

The author then gave a concise, yet comprehensive, description of the symptoms usually present. The prognosis is good, provided excision is properly performed. The voice will be vastly improved, both in tone and quality, and no deleterious, sexual changes, or perversion will ensue. As to treatment, the author suggested that we have to consider the hygienic, prophylactic, local, constitutional and surgical. The detail of each was noticed and thoroughness insisted upon.

Regarding Hypertrophied Faucial Tonsils.—By Dr. J. F. Barnhill, of Indianapolis, Ind. It is strange the laity still have absurd notions regarding the functions of the various tonsils.

The system would suffer little or none from the ablation of the normal glands. The author's classification was (1) those in which the patient claims never to have suffered inconvenience from the tonsil; (2) those in which there is quinsy or tonsillitis one or more times a year; (3) a small flat, yet pathological, gland. In all cases of clearing out these diseased crypts, the patient is a most valuable assistant.

The bad results to health of pathological tonsils were enumerated, both as a cause of reflex neuroses and as obstructive bodies—as absorbents and as auto-infectious bodies.

The various methods of treatment and removal were considered, and the merits of each according to the author's ideas were pointed out.

Insanity of Adolescence.—By Dr. F. P. Norbury, of Jacksonville, Ill.

The author gave a very lengthy and exhaustive discussion of the subject and from his experience drew the following conclusions:

(1) Adolescent insanity is a pure psychosis, dependent upon hereditary factors and acquired conditions, which especially inhibit the higher psychical centers and later the sensatory motor functions of the cortex; (2) that the vaso-motor and trophic centers are involved in it; (3) that the sympathetic, nervous function is disturbed, from which it is apt to end eventually, in the female, in suppressed menstruation, or even excitation, producing nymphomania; (4) that masturbation is a complication which, in the male, is apt to cause reflexes; (5) there is no period in life more important than adolescence.

Treatment of Cerebro-spinal Syphilis.—By Dr. A. E. Sterne, of Indianapolis, Ind.

In the treatment of syphilis of the brain and cord the ordinary therapy is wholly inadequate if not entirely wrong. The dose is too small; the potash is inferior to the sodium salt, especially in large doses. The syphilitic lesions of the brain and cord may be (1) of the meninges; (2) of the brain and cord tissues with gumma formation; (3) of the bony parts; (4) of the blood-vessels.

The author mentioned three new and important points in diagnosis and therapy. In producing reflex with the percussion hammer there occurs at the point of the hammer-blow a second prolonged contraction across the muscle. The iridic reflex to light is sometimes difficult to determine and is not always present.

The third point was wholly prognostic in value. It relates to capillary pulsation. Whenever it occurs it indicates high arterial tension, and should serve as a guide in the use of heart stimulants.

The Motor Neuron in Practical Diagnosis.—By Dr. H. T. Patrick, of Chicago, Ill.

The author made a concise statement of the more practical relations of the neurons of the motor tract. A neuron being, as he explained, simply a nerve unit, and the motor tract being made up entirely of two distinct sets of neurons, an upper and lower. A lesion of either set causes paralysis, but the customary accompanying symptoms are radically different in the case of the two groups. The rationale of these differences was briefly stated, and it was explained that in a lesion of the upper neurons the paralysis is plastic, accompanied by increased deep reflexes, no atrophy and no change in electric reactions; in a lesion of the lower neurons, on the other hand, the accompanying and distinctive signs are flaccidity, loss of deep reflexes, atrophy and reaction of degeneration. It was further stated that it makes no difference whatever which part of the neuron is affected, the result in all respects is exactly the same.

Tobacco Neurosis.—By Dr. Phillip Zenner, of Cincinnati, O.

In very many instances, tobacco is only one of the many causes of the malady. Among the other factors, often conjoined with tobacco and making the diagnosis more difficult, are alcohol, coffee, mental strain, worry, etc. Syphilis also often plays an important part. The neuroses

most certainly traced to tobacco are functional disease of the heart, amblyopia, tremor, vertigo, neurasthenia, some form of neuralgia, rarely angina, and the lesser nervous disturbances, epilepsy, and various psychoses, even paresis have been attributed to it, although without sufficient reason in every case. The treatment is entire abstinence. The mere lessening of the amount usually fails altogether. Frequently entire abstinence of a year or more permits a return in moderation without harm.

Experimental Work on the Penetrability of Vaporised Medicaments in the Air Passages.—By Dr. H. M. Thomas, of Chicago, Ill.

Do vapors enter the alveoli of the lungs. All observers have thus far questioned such possibility. The greatest difficulty has been in the mechanism of the instruments for vaporization. They failed to break up the oil in sufficiently fine particles so that it would be possible for it to enter the alveoli. The author related in detail the results of his experiments, mostly in animals during the past two years, and gave his reasons for believing that under proper conditions the medicament will enter the healthy lung, even to the alveoli. He exhibited a variety of microscopical slides, taken from the lung of a case in which inhalation had been practiced shortly before death, which plainly showed the oil globules in the alveoli.

Dr. C. A. Johnson added a paper on the same subject, and related his experience in the use of the instrument in forty tubercular cases. He called attention to the fact that the solution employed must be a weak one, as too strong a solution will produce irritation, and consequent hypersecretion. The first symptom of improvement is the relief from the dyspœa; the next a lowering of the temperature.

Epistaxis in the Most Serious Forms, with Report of a Case Necessitating Ligation of the Common Carotid.—By Dr. Max Thorner, of Cincinnati, O.

In using the term "Epistaxis" reference was made to hemorrhages in which blood comes from the nose, and those cases in which it merely passes through the nose. Under the latter category are comprised bleeding from the pharynx, naso-pharynx, the accessory cavities, larynx, lungs and stomach, as well as cases of fracture of the base of the skull.

Serious cases only were considered, those in which the ordinary styptics failed to check hemorrhage. The author referred to four cases in which the radical operation of tying one or both of the carotids was practiced; two of which proved fatal.

The author closed his paper with a reference to his own case. It was that of a man struck with an iron ring across the bridge of his nose and right side of the face. Unconsciousness and profuse bleeding from the nose followed. He was removed at once to the hospital and the nose plugged.

During the next eighteen days the nose was tamponed repeatedly, both anteriorily and posteriorly, but each time after the removal the hemorrhage started afresh within seventy-two hours. The patient becoming almost exsanguinated, with high pulse and some temperature, an operation was decided upon. The common carotid was ligated. The

hemorrhages did not occur, and the patient was discharged one month after the operation.

Treatment of Scoliosis.— By Dr. Wm. E. Wirt, of Cleveland, O.

The author in his paper referred to the use of dry heat at high temperature for the treatment of this condition. He recalled the fact that he had originated this treatment three years ago, and had been experimenting extensively along these lines continuously ever since. He, furthermore, expressed his regrets that some recent authors on the subject, while appropriating the ideas, had failed to give the proper credit.

The author explained in detail the apparatus used to enclose the heat about the joint, and by reference to several well-authenticated cases, showed the certain value of dry heat in the therapeutics of scoliosis.

Thyroid Glands, Clinically.— By Dr. I. N. Love, of St. Louis, Mo.

The author gave a most interesting historical review of the serum therapy and drew some valuable deductions from his experience with it.

Extra-uterine Pregnancy, Some Phases of.— By Dr. A. H. Cordier, of Kansas City, Mo.

The condition is one which is not recognized and diagnosed as it should be by the general practitioner. In the application of common sense and fair judgment is the best guide to the successful termination of a ruptured tubal pregnancy. If a blood-vessel is injured and bleeding tie it. The diagnosis is usually not very difficult. The menstrual history is a very important item and should be inquired after particularly. It is not true that every case proves fatal by rupture of the tube, as has been stated by some.

Theoretically, the pathology of these cases is of little value at the bedside. A tube when once ruptured will continue giving trouble. The dangers of the condition far outweigh the dangers of good surgery employed in these cases.

The operation should be done at the earliest possible moment; clots do not always form. No case is out of danger until the bleeding point is firmly tied.

The Treatment of Suppurating Fistulæ.—By Dr. E. J. Senn, of Chicago, Ill.

The primary dressing should not be disturbed for four or five days, when it is removed, and repeated if necessary. Nitrate of silver, or other caustics should not be used, as the granulations are only supercially destroyed, leaving a necrotic area, which should be the object to be obviated. If the granulations are persistently sluggish, it is well to occasionally pack the wound with gauze, saturated with balsam of Peru, as this agent stimulates the regenerating capacity of embryonal cells without impairing the vitality of surrounding tissues. In my hands, most obstinate fistulæ have yielder under the treatment suggested, where previous antiseptic irrigation over estimated periods of time proved of no value.

Dr. John John Punton of Kansas City, Mo., read a paper entitled *The Growing Needs of Medical-Political Organizations*, in which he said: I

am aware that there are those in our profession who shrink at the thought of combining medicine and politics, regarding them as entirely imcompatible and exceedingly nauseating. But there never was a time in the history of medicine when such a mixture was more urgently needed than the present, and instead of attempting to render so much unappreciated gratuitous service to the public, let us recognize some of our own needs and spend at least a little time in doctoring ourselves, for, in the language of Mr. Cleveland, "Never did patient need your medical treatment more than the body politic now needs the watchful care of your patriotic and disinterested citizenship."

But the question is asked, what is the necessity for the profession entering the arena of politics? It would seem in the light of facts that no progressive physician will be guilty of such confession of ignorance, for time and space would not allow me to tabulate the various pathologic, bacteriologic, sociologic and other problems which have their purely medical aspect and which are so intimately associated with municipal affairs in both state and nation, and as such are naturally referred for solution to whatever political party that happens to be in power at the time they present themselves. If the medical profession continues to ignore the agencies in the future as in the past, which rule and govern the solution of these important problems, and leave them entirely in the hands of professional politicians, then we must expect them to be answered from a purely political standpoint, for the policy "to the victor belongs the spoils" is as active and powerful to-day as ever, and is applied to these as well as other questions which come before them. Hence the injustice entailed by such a process of forced reasoning is rarely considered. But can not the individual members which constitute the medical profession exert their influence to bring about such reforms without actually becoming politicians? In other words, is it necessary for us to concentrate our forces by the formation of a medical political organization? There is but one answer to this question.

It is impossible to bring about the reforms needed short of organization. "United we stand, divided we fall," is as true in this case as in any other, and while we are quibbling over some petty jealousies or ethical error, the organized empiric forces, already in the field, conquer every contest and reign supreme. Conceding that organization is a growing need, the next question is, how can this best be accomplished? In New York this problem has been successfully solved by the formation of a medical league. It is my opinion, however, that the various medical associations of the several states, counties and cities, are the proper places for its members to not only discuss medical politics, but organize themselves for the avowed purpose of carrying into effect the needed reforms which are so plain to every thoughtful physician. I desire to congratulate the members of this glorious old State of Kentucky for the very wise manner in which you have dealt with quackery. How refreshing it is to read the headlines in a recent issue of the *Journal*, "No Itinerant quacks in Kentucky."

With the assistance of Judge Thompson, of Louisville, the osteopaths are not permitted to practice in this State. As a representative of Missouri, I desire to congratulate the medical profession of Kentucky, and especially your Board of Health, for the valuable services rendered the medical profession, as well as the State of Kentucky. We, in Missouri, so far have not been as fortunate as yourselves in ridding the state of itinerant quacks. Even the Governor of our State recognizes osteopathy as a legitimate medicine and does not hesitate to exalt homœopathy by placing in their hands the oldest and largest insane hospital in the State. In addition to this the function of our State Board of Health is practically a figure-head. In California our friends are having similar experience with the homœopaths, for they have already petitioned the governor of that State to allow them recognition in the medical department of the universities. They also reminded the governor that during the eighty-seven years that the homœopaths have been in existence that have not added one single discovery in the vast field of scientific medicine. Indeed, all that homœopathy accedes to or uses is taken from the work of our own laboratories, clinicians and savants. In support of this, during the preparation of this paper, the catalogue of the Hahnemann Medical College, of Philadelphia, came to hand. This, I take it, is one of the best of their representative schools, and yet I find that the text-books recommended under each department of medicine are taken from the regular school of medicine. For instance, under practice such familiar names as Flint, Roberts and Osler are recommended; surgery, Keen, Moulin Park and Treves; obstetrics, Lusk; pediatrics, Lewis Smith; gynecology, the American Text-Book; neurology, Dana; physiology, Kirkes, while under materia medica, strange as it may appear, the national dispensary is recommended, which as you know, contains no homœopathy whatever. In thus alluding to these facts it is not my desire to unjustly criticise or censure, but simply wish to call attention to the great need of defending our own rights in the cause in which we are engaged.

The committee on nominations reported as officers for the ensuing year the following names:

President—Dr. John Y. Brown, of St. Louis.

Vice Presidents—Dr. A. J. Ochsner, Chicago; Dr. A. P. Buchanan, Ft. Wayne.

Secretary—Dr. H. E. Tuley, Louisville.

Treasurer—Dr. C. A. Wheaton, St. Paul.

Nashville was selected as the next place of meeting, and the date of the meeting was suggested as the second Tuesday in October, 1898. On motion the report of the committee was unanimously adopted.

Amendments to the constitution enlarging the duties of the secretary, and providing a salary for his services were adopted, as well as a decided action was taken looking toward the permanent preservation of the transactions of the association.

One of the pleasant features of the closing scenes was the presentation of some elegant furniture to Drs. Stucky, Grant and Tuley, on be

half of the exhibitors present, in recognition of the work done by these gentlemen, together with their unceasing kindness and hospitality.

"GRIP."—C. A. Brice, A.M., M.D., Richmond, Va., Editor of *The Southern Clinic*, in writing upon the above subject, during an epidemic of la grippe, said:

"For the past four weeks or more we have met with five times as much grip as anything else, and the number of cases in which pulmonary and bronchial organs have been very slightly or not at all involved have been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism, hepatitis and gastric congestions have been of far greater frequency, while in all, the nervous system has been seriously depressed.

"The fatalities from pneumonia, meningitis and other complications have been fewer, showing plainly that we are gradually gaining an immunity from this zymotic invader. With each succeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nervous sedatives, anodynes and heart sustainers rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encourage action of skin and kidneys, with possibly minute doses of blue pill and quinine or calomel and salol. We have found much benefit from the use of antikamnia and salol in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from antikamnia and codeine. Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time."

PEPSIN is undoubtedly one of the most valuable digestive agents of our Materia Medica, PROVIDED A GOOD ARTICLE IS USED. ROBINSON'S LIME JUICE AND PEPSIN, AND AROM. FLUID PEPSIN, we can recommend as possessing merit of high order.

The fact that the manufacturers of these palatable preparations use the purest and best Pepsin, and that every lot made by them is carefully TESTED, before offering for sale, is a guarantee to the Physician that he will certainiy obtain the good results he expects from Pepsin.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plain, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

THE ASSIMILATION OF IRON.—The following combi
fully and scientifically put in pill form, produces, when
stomach, carbonate of protoxide of iron (ferrous carbona
assimilable condition:

Ferri Sulph. Fe SO4 } = Ferri Carb. Fe C
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In Chloro-anemia, Warner's Pil. Chalybeate Comp.
diseased red globules of the blood with a rapidity not
under the use of other ferruginous preparations; it adds
logical power, and makes them richer in coloring mat
being neither styptic nor caustic, and having no coagulati
action on the gastro-intestinal mucous membrane, this pre
causes neither constipation nor diarrhea; as it does not ne
in order to be absorbed, it gives rise to no sensation o
stomach, or the gastric pain and indigestion occasioned b
tions. In women who have not menstruated for many m
orrhea disappears; in others suffering from an anemic sta
tion, give Warner's Pil. Chalybeate Comp., one or two
which will soon restore the blood to its normal state.

The small quantity of nux vomica is added to in
effect, give tone to the stomach and nerves, and increase

No matter how great may be the ability of the practi
nostician, the patient receives no advantage if the prepa
tered are of different quality; and if, as the result of su
itation goods, the outcome of a given case is unsatisfacto
will be blamed, not the druggist. See that your prescrip
written.

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IRRITABILITY AND INFLAMMATION OF THE GENITO-UR
In my practice the administration of Sanmetto has
results. I have found it unequalled in cases of cystiti
and all cases of irritability and inflammation of the gen
In many cases of gonorrhœa I have used it with excellen
am pleased to recommend Sanmetto to the profession
which has proven invaluable to me in treating the abo
tions. C. W. Sa

Jackson, Mich.

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ing premium book on "Suggestive Therapeutics." PSYC
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BRAUNSCHWEIGER MUMME.—If you want a good, reliable and palatable Malt Extract, with a very limited per cent. of alcohol, do not forget to try the very excellent preparation put up by The Long Island Bottling Co., of Brooklyn, N. Y. It is an effective tonic, and at the same time a mild stimulant; tolerated by the weakest stomach, and is a substitute for solid food in cases of acute disease, as well as a valuable aid to digestion in all chronic conditions attended with a mal-assimilation of food. For nursing mothers, cases of insomnia or nervous disorders resulting from impaired digestion, and convalescents, it is especially applicable.

FUNCTIONAL DISEASES OF THE UTERUS AND APPENDAGES.—In the treatment of Functional Diseases of the Uterus and Appendages, Dioviburnia (Dios) holds a most remarkable curative influence in its marvelous tonic effect on the entire uterine system, and is there indicated in all abnormal conditions, whether dysmenorrhea, amenorrhea, menorrhagia, or any functional wrongs of women. Aching back, bearing-down abdominal pains, soreness of the lumbar region, is an abnormal condition in which Dioviburnia is indicated, and should be administered in tablespoonful doses, three times a day in hot water.

MURPHY AT MOSCOW.—Dr. Murphy, of "Button" fame, astonished the natives at the International Medical Congress in Russia. "Papers read in English," says the *N. Y. Med. Record*, "usually received the most brutal treatment; not so with that of Dr. Murphy; it was listened to with marked attention, and his instruments were examined with great interest." Murphy is a very young man, but is world-wide famous. In this instance he reported cutting down on the right subclavian artery which had been cut by a bullet, and a large hæmatoma had formed. He cut out five-eighths of an inch of the artery, stitched the two ends together, and got pulse at the wrist immediately. A surgeon who can do this, American tho' he be, is entitled to be listened to.—*Texas Medical Journal, Nov.* 1897.

SEND OUT INVITATIONS.—"Opporchunities," said Uncle Eben, "is pretty sho' ter come to ebery man. But it's a mighty good idee, jes' the same, foh him ter hustle roun' an' send out a few invitations."—*Washington Star*.

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Reviews and Book Notic

Text-Book of Nervous Diseases, being a compendiu
Students and Practitioners of Medicine, by Chas.
M.D., Professor of Nervous and Mental Diseases i
pital Medical College; Visiting Physician to Bellevu
rologist to the Montefiore Home; Ex-President Am
ical Association, etc., etc. Fourth edition, revise
two hundred and forty-six illustrations, 8 vo. Cloth
$3.50 net. Wm. Wood & Co., Publishers, New York

The new edition of Dr. Dana's book is slightly
practically rewritten. The part on Peripheral Neu
ly rearranged; new chapters have been added on
Multiple Sclerosis, Meningitis. and Traumatic N
anatomical chapters have all been revised and lar
and the anatomy and pathology of the work have
into relation with modern views as to the neuronic
the nervous system. The Therapeutical part has
by additions to the appendix giving mechanical det
ious accepted therapeutic measures of modern neur

Many new illustrations in colors and half-to
added. Withal, however, the book has been but sli
and its general character, which has met with
approval in the preceding editions, has not bee
presents modern neurology in a concise yet clear
form.

To the neurologist and the alienist this book
to be indispensable, being so full, clear, concise
For students and the general practitioner it will eve
and reliable friend for frequent consultation in
phases of nervous patholgy.

Essentials of Bacteriology, a Concise and Systemati
the Study of Micro-Organisms, for the Use of Stud
tioners, by M. V. Ball, M.D., Bacteriologist to St.
Philadelphia. Third edition, revised, with eighty-
some in colors and five plates, 12 mo., cloth, pp.
W. B. Saunders, 925 Walnut St., Philadelphia, Pa

We have had occasion heretofore to make not

cellent little work, which is so concise and condensed as to be of most practical value in this busy age. The great advances made recently in its special field is sufficient justification for this last (3rd) edition, which is thoroughly revised by its very competent author. Its subject matter is fully up to date, its plates and illustrations most perfect, its price so moderate,—then what more could be wanted?

A TREATISE ON GYNECOLOGY—MEDICAL AND SURGICAL. By S. POZZI, M.D., Professor Agrege a la Faculte Medecine de Paris; Chirurgien de l'Hopital Broca; Member de l'Academie de Medicine. Seoond American Edition, Translated from the Third French Edition under the Supervision of Brooks H. Wells, M.D., Editor of the *American Journal of Obstetrics;* Adjunct Professor of Gynecology at the New York Polyclinic; Fellow of the New York Academy of Medicine. Royal Octavo, cloth, pp. 936, fine muslin, $5.50, net; leather, $6.50, net.

The third and latest edition, which the author has carefully revised, with important additions, has been translated and printed under the personal supervion of Dr. Brooks H. Wells, of New York, Editor of the *American Journal of Obstetrics*. Not only the author's world-wide reputation, but the easy style, complete scope, and, above all, the essentially practical character of his writing, have made his great work on gynecology the standard both here and abroad. It is rarely that we see a treatise on any subject which covers the ground with such thoroughness, both as to the topics embraced and as to the complete care with which each is treated.

Dr. Wells' careful oversight of the work is an ample guarantee of the scientific value of the translation. Pozzi's gynecology is a complete compendium of the subject, both medical and surgical, and reflects the very latest status of the best theory and practice, and is so well-known that commendation at our hands is superfluous. It has been translated into the German, Spanish, Italian and Russian languages as well as our own vernacular, and has received the prize of the Institute and of the Academy of Medicine of Paris.

The third French edition, of which this is a translation, has been the subject of a careful and thorough revision, and of many additions. Some of the chapters have been entirely rewritten as the progress of the day has demanded. The most

recent treatment of uterine fibroids by abdominal and vaginal hysterectomy, the indications for the latter operation in pelvic suppuration, the recent forms of intervention in cases of retro-deviations cf the uterus, are all most ably and thoroughly discussed. In all cases where there has been a difficulty in presenting a dogmatic exposition of certain questions still *sub jadice*, he presents an exact idea of the different opinions advanced, but does not hesitate to lay down his own views in unmistakable language.

Pozzi's Gynecology is fully well-known to the readers of this journal; but the edition before us is so handsome in type—external as well as "printers," its appearance is so grand, the paper and binding so much in keeping with the handi-work of Wm. Wood & Co., the illustrations principally from entirely new drawings so far in advance of any preceding edition, and the able supervisorship of Dr. Wells, make this work one well worthy of a commanding position in the library of any man connected with the profession of medicine in any land.

TWENTIETH CENTURY PRACTICE. An International Encyclopepia of Modern Medical Science. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Vol. XII., "Mental Diseases, Chilhood and Old Age." New York: WILLIAM WOOD AND COMPANY. 1897.

Well, we have passed the half-mile post and are well on the way to a finish with this grand exposition of modern medical science, and as in any race acceptable to the lover of the thoroughbred, the pace is getting hotter, and the work better. Having had occasion to call attention to the eleven predecessors of the volume before us, which was necessarily most favorable, we are gratified, indeed, to state that with such a pedigree as has been given the preceding entries of these candidates, the twenty volumes of the Twentieth Century Practice, it is indeed satisfying in the extreme to find that both workers and the work undertaken in this great enterprise is fully in keeping with what has preceded it. Insanity, by G. Fielding Blanford, of London, with its 254 pages; Idiocy, by Paul Sollier, of Paris, France, to which is given 114 pages; Criminal Anthropology, by Cesare Lombroso, of Turin, whose fame is world-wide, is allotted 35 pages; Old Age, by J. Boy-Teissier, of Marseilles, 111 pages;

Diseases of Children (excluding infectious diseases and rachitis), by Jules Comby. of Paris, with its 297 pages make a *carte* that will stimulate the appetite of the most indefatigable *bon vivant* searching for tit-bits and wholesome sustenance at an intellectual repast in the fields covered by Volume XII of of the Twentieth Century Practice.

We can only say to Messrs. Wood & Co., and their able editor, Dr. Stedman, go on in the good work.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By JOHN M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College, Philadelphia; Attending Physician to the Medico-Chirurgical and Samaritan Hospitals, Philadelphia, etc. Complete in one handsome octavo volume of about 1300 pages. Fully illustrated. Price, cloth, $5.50 net: Sheep or Half Morocco, $6.50 net. W. B. SAUNDERS, Publisher, 925 Walnut St., Philadelphia. 1897.

The making of books increases day by day with most astonishing rapidity and magnitude, as well as perfection, yet the important additions made within the past few years to our knowledge of the practice of medicine in general and of the diagnosis and treatment of diseases in particular, have created a need for throughly up-to-date text-books by authors of wide experience. The present work gives in a comprehensive manner the approved results of the latest scientific students bearing upon medical affections, and portrays with rare force and clearness the clinical pictures of the different diseases considered. The practical points, particularly with reference to diagnosis and treatment, are not only completely stated but are presented in a most convenient form; for example, the differential diagnosis has in many instances been tabulated, no less than fifty-six diagnostic tables being given throughout the work, a most important feature that will prove of incalculable value.

Bacteriology, so important at the present day, has received due and considerate attention. Such formulæ have been introduced into the text, and only such, as a more or less extended experience has shown to be of rare therapeutic importance.

Preference has been given to modern orthography and terminology, not only because believed to be more euphonious, but also because of its adoption by the standard lexicographers.

The author has shown himself to be well versed in medical literature, and his personal experience and obs during a period of two decades in an extensive private pital practice, made manifest in this work, show that he a carful and close observer, and well entitled to enter tl of medical authors who have a claim to the attention of fession.

THE MEDICAL NEWS VISITING LIST FOR 1898 Weekly (dat patients): Monthly (undated, for 120 patients per month); (undated, for 30 patients weekly per year); and Perpetual for 60 patients weekly per year.) The first three styles c pages of data and 160 pages of blanks. The 60-patient consists of 256 pages of blanks. Each style in one wall book, with pocket, pencil and rubber. Seal Grain Leath Thumb-letter Index, 25 cents extra. Philadelphia and N LEA BROTHERS & Co.

A visiting list is an indispensable convenience for tl practitioner. Prominent among the many books of thi stands the *Medical News Visiting List*. The work open pages of printed data of the most useful sort, incl alphabetical Table of Diseases with Approved Remedies of Doses, sections on Examination of Urine, Artificial tion, Incompatibles, Poisons and Antidotes, a Diagnos of Eruptive Fevers, and a full-page plate showing at the incisions for ligation of the various arteries, an in guide in such emergencies. The *Medical News Visitin* issued in four styles, adapted to any system of records method of keeping professional accounts. It is dur handsomely bound in the size of a wallet for the pocket. desired a Ready Reference Thumb-letter Index is i which is peculiar to this List and an economizer of time

A HAND-BOOK OF THERAPEUTICS, by SYDNEY RINGER, M.D Holme Professor of Clinical Medicine, University College; to the University College Hospital; and HARRINGTON S. M.D., F.R.C.P., Physician to the Royal Free Hospital, an of London Hospital for Diseases of the Chest, Victoria Pa teenth edition, 8 vo. cloth, pp. 746. WM. WOOD & Co., P New York, N. Y. 1897.

The following statement, which is authoritative and

made in the preface to this Thirteenth Edition of this valuable work, fully shows its scope and the field covered by it: "In this edition, as in those which have preceded it, the indications for the use of drugs in disease are dwelt on rather than the physiological action. The book is, in fact, a work on Clinical Therapeutics.

A long interval having elapsed since the last edition, the list of new drugs and new methods to be considered has been proportionately great, and the difficulty has been to select the tried from the untried. The endeavor has been made to do this, however, and at the same time every portion of the work has been carefully revised."

A separate chapter on Serum Therapeutics has been introduced, and a short section on digestive ferments as well as a brief but practical reference to the Nauheim-Schott treatment. The work is brought fully up to date and its previous popularity and universal renown renders unnecessary farther comment at our hands.

TRAUMATIC INJURIES OF THE BRAIN AND ITS MEMBRANES, With a Special Study of Pistol-Shot Wounds of the Head in Their Medico-Legal and Surgical Relations, by CHARLES PHELPS, M.D., Surgeon to St. Vincent's Hospital; 8 vo. cloth, pp. 582. With Forty-nine illustrations. D. APPLETON & Co., Publishers, New York. 1897.

This excellent work presents, first, to us an admirable classification of injuries of the head, and then goes very minutely into the symptoms and diagnosis of many of the injuries which have been so often overlooked, thus enabling us by care and painstaking to recognize and properly treat them. The author has spent time and research not only upon cases which have terminated successfully, but by post mortem examinations has laid the profession under many obligations for the valuable points gleaned in this way. We would especially call our readers' attention to the portion of this volume treating of: "Pistol Wounds of the Head from a Medico-Legal Standpoint." These observations are made upon the cadaver, and thus present the distinctive characteristics of such wounds when produced upon the living subject, and open up a valuable field for expert testimony for the surgeon. The book is gotten up in good style, splendid print, and abundantly illustrated.

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